

Ivan Gitachu

KEY COMPETENCIES ESSENTIAL FOR NURSES IN HIV/AIDS CARE.

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ABSTRACT

Centria University of Applied Sciences	Date May 2017	Author Ivan Gitachu
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Instructor MNSc Timo Kinnunen	Pages 36+7	
Supervisor PhD Ulla Timlin		
<p>The purpose of this study was to research and gather the current practices in HIV care and skills nurses need to effectively provide care to people living with HIV. This study also aimed at showing how nurses caring for people living with HIV need to expand their scope beyond basic nursing skills and knowledge to be able to go an extra mile in providing the much needed supportive HIV care and thus promoting the quality of care through improving the nurses' abilities. The goal of the research was to investigate the key competencies essential for nurses working with HIV/AIDS patients and enhance the expertise required in this care, thereby leading to a better patient-centered care.</p> <p>The study was carried out as a literature review. The data collection process was done using a qualitative method. The majority of the source material was from scientific journals in electronic databases though books and other web source materials were also used. The databases used by the author are: CINAHL, OVID, SAGE Premier, Ebook Central and Science Direct. In addition to the above scientific databases, authentic internet sources such as: WHO, UNAIDS, HIVPOINT and THL were also used as part of the theoretical framework. The author of this study employed strict inclusive and exclusive criteria and the research findings were analyzed using content analysis method. Only fully accessible research articles that focused on the research topic published not more than ten years ago that were in English and Finnish were used in the research process. A total of 16 articles were used for the literature review.</p> <p>HIV is a complex disease with extensive psychosocial consequences and physical comorbidities and syndromes, thus requiring specialized competencies in nurses caring for people living with HIV. Deficiencies in competency contribute to stigmatizing and discriminatory practices by nurses towards people living with HIV thus causing negative consequences to people living with HIV and may hamper efforts to stem the HIV epidemic. Nurses are required to have competencies in four major areas related to HIV. These are: Etiology and medical knowledge of HIV; Ethical, legal, psychosocial and spiritual competence; Psychomotor skills related to HIV nursing care and competence in Professionalism.</p>		

Key words

Nursing competencies, counselling, HIV/AIDS nursing, nurse role, people living with HIV, skills, stigma.

LIST OF ABBREVIATIONS

WHO	World Health Organization
UNAIDS	Joint United Nations Programme on HIV/AIDS
HIVPOINT	Finnish HIV Foundation
THL	National Institute for Health and Welfare, Finland
HIV	Human immunodeficiency virus
AIDS	Acquired immune deficiency syndrome
POC	Point of care HIV testing
ECDC	European Centre for Disease Prevention and Control
PrEP	Pre-exposure prophylaxis
CANAC	Canadian Association of Nurses in AIDS Care

ABSTRACT
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APPENDICES

1 INTRODUCTION

Human immunodeficiency virus (HIV) affects the cells of the immune system and destroys them or hinders their activity. This in turn leads to a continued decline of the immune system causing immune deficiency. The immune system is regarded as deficient once it is no longer able to accomplish its function of combating infection and disease. Infections linked to critical immunodeficiency are labeled opportunistic infections due to their exploitation of a diminished immune system. The advanced stages of HIV infection are termed Acquired immunodeficiency syndrome (AIDS) and can be defined by the manifestation of any of more than 20 opportunistic infections or HIV-linked cancers. HIV is transmittable through: unprotected sexual intercourse with an infected individual, contaminated blood products, contaminated needles and syringes, contaminated surgical equipment or other sharp instruments. It can also be passed on from mother to child during pregnancy, childbirth and breastfeeding. (WHO 2016.)

According to UNAIDS, since the beginning of the HIV epidemic approximately 78 million people have been infected with HIV, with an approximate 35 million people dying due to AIDS related illnesses and an estimated 36.7 million people living with HIV worldwide by the end of 2015. In 2015 the number of people newly infected with HIV and the number of people who died from aids related illnesses was approximately 2.1 million and 1.1 million respectively. Approximately 18.2 million people with HIV were accessing antiretroviral therapy by June 2016 as compared to an estimate of 15.8 million in June 2015 and 7.5 million in 2010. An estimated 46% percent of people with HIV had access to treatment in and about 77% of HIV positive pregnant women having access to antiretroviral medication for the prevention of HIV transmission from mother to baby. Among children new HIV infections have fallen by about 50% since 2010 with approximately 150 000 newly infected in 2015 compared to approximately 290 000 in 2010. (UNAIDS 2016.)

There has been no reduction in new HIV infections for adults, with about 1.9 million adults acquiring HIV infection yearly since 2010. However, AIDS-associated deaths have seen a reduction of 45% since their peak in 2005 with approximately 1.1 million people dying in 2015 in comparison to approximately 2 million in 2005. Tuberculosis is the predominant cause of death among the HIV positive, being responsible for a third of AIDS-related deaths. However tuberculosis related deaths have seen a reduction of 32% since 2004. In 2015 an investment

of 19 billion US dollars was made in to the AIDS response in low and middle income countries. 57% of the total resources for HIV in low and middle income countries were made up of domestic resources in 2015. It is estimated that 26.2 billion dollars will be needed for the aids response in 2020 and 23.9 billion in 2030. (UNAIDS 2016.)

Approximately 3300 people have been diagnosed with HIV between the years 1980-2014 in Finland with about 315 people dying from AIDS. The number of new HIV infections has been gradually rising throughout the past decade though the numbers for new HIV diagnoses have remained fewer than 200 annually in the 21st century. Furthermore an estimated 1000 people are thought to carry the HIV virus while unaware of being infected. (HIVPOINT.) A total of 173 new HIV diagnoses were found in Finland in 2015 with 75% of the diagnoses were found in men and the remaining 25% in women. Among those diagnosed, those of foreign origin constituted 56% of the total with 36% of them being women whereas of those diagnosed who were of Finnish origin 90% percent were found to be men. The majority of infections were acquired through sexual intercourse with 41% through heterosexual contact and 27% through sexual contact between men. The majority of heterosexual infections were contracted abroad while the majority of infections contracted through sex between men were contracted in Finland. (THL 2016.)

As the HIV/AIDS epidemic has gradually receded from the headlines, HIV/AIDS education has been minimized with many student nurses approaching graduation, reporting feelings of inadequacy in regards to HIV care which can cause a perpetuation of fear and stigma towards people infected with HIV (Frain 2016). The topic for this study was inspired by my own experience in the field of encountering a client living with HIV. Though I only learnt of the client's status after the encounter I experienced irrational fear that lead me to do some research on HIV which made me realize my inadequate knowledge about HIV and its current management and care. The purpose of this study is to research and gather the key competencies nurses need to effectively provide care to people living with HIV as well as possible consequences of inadequacies in these competencies. This study also aims at revealing that there is a great need of improvement in the skills of nurses that provide HIV/AIDS care. This will promote the quality of care thereby leading to a better patient-centered care.

2 THEORETICAL FRAMEWORK

To facilitate a discussion on HIV, AIDS, its care and required nursing skills a detailed definition of these concepts is required. This chapter will introduce in detail HIV as a disease while simultaneously expanding on the definitions of the key terms thus providing the reader a clear perspective of the major concepts of the study.

2.1 HIV

There are two major subtypes of HIV: HIV-1 and HIV-2, with HIV-2 being more difficult to transmit and progresses more slowly than HIV-1 (Hu, Preston, Neff, Kumar, Habu, Akkina, Seki & Akkina 2016). A virus can be described as genetic material wrapped in a coat of protein molecules. Viruses have no cell walls and are parasitic, furthermore they can only replicate inside a host cell. HIV is also classed as lentivirus meaning slow acting. HIV, like many lentiviruses has been known to have adverse effects on the human brain and the immune system. (Lampejo & Pillay 2013.) The combination of HIV and other major diseases slows down the healing process as the immune system is greatly compromised (Joska, Stein & Grant 2014).

HIV is transmitted from an infected person to an uninfected one when the infected person's body fluids enter the uninfected person's body mostly through the mucous membranes. This includes vaginal membranes, oral membranes and the anal membranes. Another common method of infecting uninfected people with this virus is through the skin. For example, when using infected intravenous needles, body fluids are exchanged and the virus could easily gain entrance to the bloodstream. (Doyal & Doyal 2013.) An infected mother could pass on the virus to the child during labour or breastfeeding. During organ transplantation and blood transfusion, HIV virus could easily be transmitted. Pre-screening of such tissues before the donation process has proved to be beneficial and has helped in curbing the spread of the virus. (Adler, Edwards, Miller, Sethi & Williams 2012.)

HIV must invade cells to reproduce. HIV is known to undermine the immunity to fight it and enhance its reproduction thereby speeding up the rate of infection. When HIV gets access to a cell, it converts viral RNA into DNA within the particular cell by using the enzyme transcrip-

tase. These numerous RNA copies are transformed from RNA to DNA and back again to DNA. Due to the rapid conversion process and the undermined immunity of the person, the body is unable to fight HIV. This enhances the mutation of the virus. Reverse transcriptase does not have the typical proofreading that happens with the replication of DNA thus making the possibility of mutation more likely. The process continues in such a way that after the formed copies leave the cell, the cell is already damaged and the infected cell goes ahead to infect other healthy cells making it very difficult to eradicate the virus. (Adler et. al 2012)

The mutation of the HIV virus has resulted in the evolution of several sub-types of the virus. In the USA the type B is the main subtype, in East Africa subtypes A and D are the prevalent subtypes, subtype c is the prevalent type in Southern Africa while West Central Africa has the greatest variance in subtypes. In addition, mutation has resulted in HIV having the ability to outmaneuver both our biological response as well as our scientific responses such as drug development. Our individual immune systems respond to infections and acquire resistance, this resistance and response can be passed onto future generations. (Doyal & Doyal 2013.)

2.2 Diagnosis

Nurses caring for people living with HIV/AIDS should receive proper testing training, thus curbing the spread of the virus and helping patients seek medical care and antiretroviral treatment in time. Early detection helps in this disease and can bring about great reduction in transmission rates. When someone is recently infected, HIV antibodies could be detected after 45-60 days of infection through screening tests. If the patient is being tested for the first time, they should be advised to come back for another test after three months because HIV antibodies might not be detectable earlier on in the infection phase through screening enzyme immunoassay (EIA) test or rapid assay test (Hall, Hall & Cockerell 2011) In fact, majority of people only acquire detectable HIV antibodies between 6 to 12 weeks after infection thus the window period from infection to detection being about 3 months (Pribram 2010). In this duration, a newly infected person will have signs and symptoms similar to those of a common flu and may not necessarily experience the adverse impacts of HIV.

The HIV test kits used in most testing centers can detect HIV-1 and HIV-2 antibodies after about 20-30 days of infection. (Lampejo & Pillay 2013) Sometimes, an infected person may

test negative and that is why nurses should advise patients on safe practices to avoid contracting the disease. Newer test kits that are now in use detect both antibodies and p24 antigens thus reducing the window period to between 3 and 6 weeks after transmission. A negative test result 6 weeks after exposure can be concluded to be correct with a high degree of certainty though it is recommended to take a repeat test after 3 months for additional reassurance. (Adler et. al 2012) Rapid HIV antibody tests have also been developed. They are easy to use and provide a number of benefits in situations that necessitate point of care testing (POC). Rapid tests can be performed in 20 minutes and they do not require special laboratory equipment or extensive personnel training. Rapid test kits have less strict storage prerequisites and are used extensively in parts of the world lacking laboratory infrastructure for HIV serodiagnosis. (Hall et.al 2011.)

In many workplaces, especially in the healthcare field, workers are required to go for regular health check-ups and an HIV test amongst other viral infections are a prerequisite. In antenatal, drug dependency programme clinics and sexual health clinics, HIV testing is a prerequisite for every patient visiting (Adler et. al 2012). The World Health Organization acknowledges four stages of HIV disease progression. The first stage is known as asymptomatic infection. This is the case in newly diagnosed infected patients who experience no symptoms after contracting HIV. In the second stage, symptoms like mild weight loss, fungal infections and herpes zoster appear. The patient is generally unwell as the virus gets replicated and starts spreading around the patient's cells. Stage three is marked by serious signs and symptoms like opportunistic infections, fevers, severe weight loss, diarrhea, candidiasis and possibly tuberculosis. During the last stage, the fourth one, also known as AIDS, the patient is very weak and very sick. The patient is seriously ill and may be suffering from extra-pulmonary tuberculosis, pneumocystis pneumonia, other pneumonias, toxoplasmosis and meningitis (Doyal & Doyal 2013).

2.3 Management

The nurse is seen as the primary link to the patient in any given health care facility. The nurse must therefore be fully competent in order to ensure that the patient gains the much required medical treatment. In this chapter, the author has defined the main findings on management of HIV/AIDS in three different categories: testing, prevention and care. Testing of

HIV/AIDS should be encouraged among patients to ensure early treatment. Late diagnosis may prove to be more expensive and the patient may experience worse suffering or worse still, spread the virus unknowingly. Prevention covers methods used to keep HIV infection rates at a minimum. When dealing with people living with HIV/AIDS, the nurse must be able to walk the patient step by step into the care plan that will enable the patient to live a full life. The nurse impacts greatly on the physical and mental health of such patients through counselling.

2.3.1 Testing

Nurses should be trained to identify the main groups of people who are more prone to contracting the disease in order to be able to train their patients about proper HIV/AIDS management. This will go a long way in curbing infection rates and ensuring that more people are aware of their status. People who are more prone to contracting the disease include the following (but are not limited to): Sex workers, patients that are diagnosed with a sexually transmitted infection, patients who have sexual partners that are already diagnosed with the virus, gay and bisexual men and patients who use injected drugs. Other risk groups differ according to ethnicity and geographical locations. (Doyal & Doyal 2013.)

Many patients have been treated for symptoms closely related to HIV but since they have not yet been tested, they are misdiagnosed and the treatment offered to them does not work. They may end up spreading the virus and usually end up with a late diagnosis which makes the management of the disease very difficult. According to a research carried out in 2012, almost a quarter of the people infected with this virus in the USA and UK are oblivious of their HIV status (Adler et. al 2012). Despite the fact that HIV/AIDS awareness has been greatly emphasized, most people have not yet visited testing centers. As such, it is presumed that since the most common way to contract this virus is sexually, most people continue to practice sex carelessly. In fact, according to a fact sheet produced in Nov 2016 by UNAIDS, HIV infections have not been reducing since 2010 and almost 2 million new infections are recorded annually (UNAIDS 2016, 1). Like any other disease, HIV/AIDS early diagnosis enables people living with the virus to live an almost normal life and get early treatment which guarantees quality of life.

Key factors that would help nurses care better for HIV/AIDS patients need to be put in place in health care facilities. For example, it should be a routine procedure to test patients for HIV if they suffer from a sexually transmitted infection. Nurses should be able to advise these patients on the importance of proper sexual habits and the importance of testing to get rid of doubt and ensure early treatment, if need be. Prior to testing, nurses should have a proper conversation with patients ensuring the patient fully understands the benefits of the test and the options available to the patient regardless of the results. The nurse must ensure that they are professional the whole time and allow the patient to make the decision. Face-to-face conversations are a better way to carry out this procedure. Other recommended suggestions are that, the patient is able to comprehend the information. For instance, patients with memory loss problems or mental conditions might need to be dealt with differently as they may not be able to fully understand the information or importance of such testing. The law guides nurses on the procedures to undertake when dealing with sensitive health issues for such patients. (Adler et. al 2012.)

2.3.2 Prevention

When it comes to prevention of contracting HIV/AIDS, nurses play a key role. As discussed earlier, the nurse is the primary contact of patients. One of the key competencies of nurses is educating patients. Nurses should be aware of their environment and should be able to identify the key factors that affect the public health in their geographical area. For instance, in Finland, the most prevalent groups that require more HIV/AIDS counselling and treatment are gay/bisexual men, migrants coming from high-prevalence countries and people injecting drugs. As a nurse in Finland, one of the key competencies of nurses is therefore to identify and educate these kinds of patients. According to the mission report submitted by ECDC (2013) on Finland's stand against HIV infection in 2013, gay men were reported to have insufficient knowledge on HIV prevention, transmission and management. As they constitute a major risk group in HIV contraction, nurses should be more careful when educating this group. (ECDC, 2013.)

Nurses in Finland should be able to talk to such patients on proper sexual behaviours, advocate for quitting drug use, encourage these patients to test for HIV and advise the patients on peer groups and voluntary counselling centers where they will get support. Nurses should

also be aware of institutions like SETA, a national human rights NGO which fights for LGBTI Rights in Finland as their patients, especially people living with HIV/AIDS might feel more comfortable to use such groups for support. The code of ethics in Finland forbids nurses from bias based on sexual orientation, gender and racial background. (ECDC, 2013.)

According to Adler et. al (2012), curbing the infection rate of HIV/HIV through proper sex education could also lead to a reduction in other STD/STI thereby promoting the health of the public. Other factors such as condom provision and sex education to young adults have also led to awareness which has led to reduction in the spread of the virus. There have also been significant results in the prevention and management of HIV and other infections such as hepatitis B and hepatitis C through providing clean needles and syringes to people who inject drugs. WHO (2015) has recommended the use of Pre-exposure prophylaxis to individuals who are at high risk of contracting the virus. Pre-exposure prophylaxis is a new method of preventing HIV infection to uninfected people through the use of an antiretroviral medication either as an oral medication or a vaginal gel. In 2014, gay men were advised and encouraged to use this method to cut down the infection rates. WHO(2015) advised that a combination of pre-exposure prophylaxis with other older methods such as advocating condoms, teaching and testing would be more effective.

2.3.3 Care

After patients are newly diagnosed with the virus, a lot of counselling and education will be necessary to ensure that the patient understands and copes with the disease. As stated earlier, early diagnosis of HIV helps in prolonging the life of people living with HIV/AIDS. However, the initial stages after diagnosis may be very negative and psychologically exhausting. People newly diagnosed with the acquisition of HIV/AIDS have been reported to undergo HIV stigma at first. Most times, the person will start feeling ashamed of their options that led to the contraction of the virus. This automatically draws the person into isolation as they feel stressed and their future at this point seems impossible. They also go through feelings of inadequacy and diminished social standing due to the societal view of people living with HIV/AIDS. (Chidrawi, Greeff, Temane, Doak 2016.) At this point, new patients are in need of unbiased support and nurses are required to show them the way forward.

Nursing competencies are therefore very important in guiding the attitudes of nurses caring for such patients as the patient is almost depressed at this point and needs care and lots of positivity. For instance, pregnant mothers-to-be might be scared of going through with the pregnancy if they are diagnosed with this virus. Doyal & Doyal (2013) explain that prevention of mother to child transmission has encouraged HIV positive mothers to undertake antiretroviral treatment to protect their unborn children and thereby reducing the infection rates of HIV/AIDS. According to Doyal & Doyal (2013), educating HIV positive mothers has led to safe deliveries and preparedness to cope with the virus without the fear of spreading the virus to the unborn child. Mothers are able to get acquainted with methods of taking care of their children and bring them up normally without the fear of infecting them as well as live their own lives as normally as possible, even though they are HIV positive. Other infected patients can also benefit from proper education and counselling as well as availability of tools such as condoms and antiretroviral therapy.

2.4 Nursing Competence in HIV/AIDS care

According to Harmon & Relf (2016), competency is knowledge, skills and attitude essential for healthcare professionals in the provision of care. For HIV/AIDS proper care to be implemented completely, nurses are required to employ not only the skills gained from studying nursing but also other key competencies that are learned from outside the classroom setting. That is, application of the practical sense of fighting HIV/AIDS that is gained in practical situations while working with patients in their day to day lives. Nurses should be able to identify the risk factors that encourage poor sexual behavior amongst their patients. They should also be able to advocate for testing for HIV and encourage good sexual behavior to eradicate the infection rates of this virus. Nurses should identify the risky patterns in their patients that could encourage the spread of the virus and be able to educate their patients against these. Testing, prevention and care which collectively help in HIV management require relentless nursing competencies.

Lashley & Durham (2010) claim that persons with HIV/AIDS need more than medical treatment from nurses. They encourage that nurses need key competencies in order to properly administer care to people living with HIV/AIDS and eradicate stigma, isolation and judge-

ment. This supports the mental well-being of such patients as well as that of their family members. Nursing competencies also help guide nurses in providing the much needed education for the communities to enable proper and cost effective measures in curbing the spread of HIV. Lashley & Durham (2010) applaud the fact that in the world's most developed states, people living with HIV/AIDS are able to live normal lives, thanks to the advancement in treatment and access to proper HIV care amenities. Their counterparts in developing nations still require much counselling and other cost effective methods to slow down the rate of infection of HIV. The first step in avoidance of infection of HIV/AIDS is thorough education. The role of nursing competencies comes into play here (Lashley & Durham, 2010).

Nurses are usually a patient's first contact and the most regular contact during treatment. Therefore, nurses are the most common tool employed in healthcare systems to analyze risky sexual tendencies, educate against them and therefore promote public health. Patients should feel comfortable talking to nurses about their sexuality, without fear of bias, misunderstanding or unfair judgement and discrimination. General competencies in nursing include: great communication skills, empathy, flexibility, stability and attention to detail. HIV/AIDS nurses are required to go an extra mile and be problem-solvers in the fight against the spread of HIV/AIDS. Nurses should employ the code of ethics, education and knowledge of HIV/AIDS gained through studies and in practical situations as well as ethical and cultural competencies in administering HIV/AIDS care. (Harmon & Relf 2016).

2.4.1 Education and knowledge of HIV/AIDS

The evolution of HIV into a chronic condition over the last three decades has resulted in people living with HIV surviving for longer and attaining an almost normal life expectancy. This has been achieved through better administration and availability of antiretroviral therapy. However, HIV/AIDS nursing still records a minimum record in health care providers that are equipped with basic HIV knowledge and information. This may be caused by their own personal beliefs and attitudes about HIV which affect testing and linkage to care strategies. (Portillo, Stringari-Murray, Fox, Monasterio & Rose 2016.) People living with HIV are entitled to patient-focused, life affirming and quality care that is grounded in evidence. Inadequate availability of the aforementioned care may cause stigma, delayed diagnosis, opportunistic illnesses, and decline in immunity in addition to the possible development of aids. Disadvan-

tagged populations, such as racial minorities, people of lower socioeconomic status, people with substance abuse problems and sexual minorities are disproportionately affected by new infections. (Farley, Stewart, Kub, Cumpsty-Fowler, Lowensen & Becker 2015.)

In the USA, nurse practitioners who have a high level of training, have reported higher adherence and retention in care with patients receiving care from nurse practitioners reporting high patient satisfaction (Farley, et.al 2015). Due to availability of antiretroviral therapy, people living with HIV are living longer and aging with the rest of the society. Aged-care brings newer health conditions that could affect people living with HIV more adversely than other normal patients. This necessitates improvement in HIV education for all nurses as they may encounter people living with HIV in their respective nursing fields. Due to the increasing cultural diversity of people newly diagnosed with HIV, cultural competence becomes a major factor for the best possible health care provision for people living with HIV. This calls for improvement of nursing education to guarantee a vast set of qualities and skills of nurses. This ensures that nurses are able to provide culturally competent and unbiased patient-centered care. (Dean, Staunton, Lambert, Batch, Fitzgerald & Leamy 2013.)

2.4.2 Ethical competence

Stigma has been identified as one of the main barriers to proper healthcare for people living with HIV. Nurses caring for these patients have been urged to operate within the permissible code of nursing ethics to reduce this kind of bias. Stigmatization of people living with HIV occurs in various forms including: lack of proper care within health facilities, breach of nurse-patient confidentiality, psychological abuse through omission from social interaction, verbal abuse and in some countries, physical abuse. These forms of patient stigmatization which all infringe on the code of nursing ethics have been reported in healthcare provision by nurses. (Chidrawi et. al 2016.)

Kamau (2013) describes how HIV/AIDS is marred with stigma, isolation and misinformation due to the societal view that this virus has gained in Kenya. People, who are very well educated, at university level, are still unwilling to disclose their thoughts and experiences with HIV/AIDS. This almost renders it unethical for nurses in such a country to talk openly with patients on the impact of HIV/AIDS or even offer the patients the very information they could

use to start the treatment process. The nursing code of ethics, however, encourages nurses to be that unspoken voice in such cases. As long as one is operating within the required ethical guidelines, the nurse must not be silenced into ignoring the fight against HIV. Ethical competencies revealed that there is still a lot of gender inequality which also discourages nurses from carrying out their duty to provide free and fair HIV/AIDS care to the patients. According to the research carried out by Kamau (2013) which focused on educated women, the respondents felt the need to be silent on the HIV/AIDS front, as it brought unhappy memories of how they contracted the virus. Nurses must work within the ethical framework to encourage their patients to help in promotion of public health by being totally honest and willing to partake in the fight against HIV/AIDS and thus, save more lives.

Other factors that support ethical competencies for nurses working in HIV/AIDS care would include the public health recommendations in different geographical zones. For instance, in Finland, the government encourages the use of contraceptives and as such, nurses are required to educate their patients on this approach. However, nurses must also outline the benefits of using more than oral contraception in order to fight the infection rates of HIV/AIDS. This is especially important when educating young people who are using these contraceptives for the first time. The nurse must advocate for safe sexual practices and even encourage her patients to go for HIV testing before starting to engage in unprotected sex.

2.4.3 Cultural competence

Lule & Haacker (2011) and Karim & Karim (2010), both agree that in order to slow down the spread of the virus and be able to effectively take care of people living with HIV/AIDS, nurses must be prepared to deal with some cultural and religious values that seem to undermine the efforts to curb down infection rates. Lule & Haacker (2011) compared the HIV prevalence in four different countries: Botswana, South Africa, Swaziland and Uganda. In the case of Uganda, they state that even though the infection rate has been much slower due to creation of awareness, there is still a lot of room for improvement. The religious beliefs in Uganda do not acknowledge gay couples and it is a taboo to be homosexual in this country. However, there are lots of gay people in the country and because they live secret lives, they are unable to seek HIV testing and counselling. Nurses in the area maybe unaccustomed to providing

this minority with the proper HIV care that they are entitled to, just like the other members of the community. This means that the fight against HIV/AIDS in the region is slowed down.

According to Epprecht (2013), same sex relationships were not even considered a possibility. In fact, when interventions were put in place in the initial fight against HIV/AIDS, no measures were put in place for the same sex relationship couples. Even though the leaders might have had an idea that it was an existing fact, they did not act on it. The couples in this kind of relationship were automatically forced to keep their marriages and relationships secrets and therefore, they could not acquire proper healthcare services. Nurses and other healthcare staff were also incapable of giving proper HIV/AIDS care to homosexual people. As it is considered a taboo, homosexual people had to find a way to cover up the fact that they had same sex relationships by having sex with members of the opposite sex. This put their multiple partners at risk for contracting the HIV virus. In the current day, nurses in Uganda are still having trouble fighting with these kinds of traditional cultural fashions of thinking in providing proper care for people living with HIV/AIDS patients. In accordance with the code of ethics, nurses must rise above personal perceptions and employ professionalism in the workplace.

In addition to cultures and traditions that shape the view of sex in various cultures, Endsjø (2012) brings about the religious aspect of sex. He compares different religions and their view on sex and how the followers of these religions feel about sex. He states that most religions insist on the sanctity of sex. Divorce and pre-marital sex is discouraged. This means that if the husband for instance, is cheating on his wife, she might be unable to leave the marriage and if the husband has contracted the HIV virus, the wife risks getting infected. In the case of Catholic Church, contraceptives are also discouraged. This may fuel the infection rates of HIV as the followers of this faith may not use protective methods like condoms when having sex with people living with HIV. A nurse must know how to communicate the importance of fighting HIV to members of different religions without offending or undermining the faith of her patients.

Another case example which shows how cultural nursing competencies are required in the HIV/AIDS care is the one by Karim & Karim (2010). They reveal that the main problem with curbing HIV rates in South Africa is the perception of sex within the country. Misguided traditions in South Africa such as encouraging HIV positive patients to sleep with virgins in order to get cured should be addressed. In this day and age, nurses must go beyond basic nursing

education and seek further education seminars to keep up with the current healthcare practices. Furthermore, they must analyze the attitudes and perceptions of their patients in order to promote public health. Nurses should play an active role in correcting this kind of wrongful perspective and educating the masses in proper sexual practices.

3 RESEARCH QUESTION

The objective of the research is to illuminate the nursing competencies needed in HIV care and how they affect the delivery of health care to people living with HIV/AIDS. The study aims to provide more knowledge on the current methods used to combat the HIV epidemic. The research questions used in this study were:

1. What are the nursing competencies required in HIV nursing care?
2. What are the effects of inadequate competence in HIV nursing care?

4 METHODOLOGY

This chapter clarifies the scientific method in which the author carried out the study. This work is a literature review and the author considered scientific research articles that have been published on HIV and nursing competencies required for caring for people living with HIV/AIDS. The author reviewed the articles thoroughly and used inclusion and exclusion criteria in choosing the most relevant articles that address his main topic of interest; the key competencies of nurses caring for people with HIV/AIDS.

4.1 Literature review

The study was conducted as a literature review. When writing a literature review one should start with a research question that clearly brings forth the research topic as well as the intended audience (Baker 2016). A literature review is a secondary written analysis of existing knowledge on a topic (Jesson, Matheson & Lacey 2011). This analysis can bring about new observations that are only possible when each piece of existing knowledge is viewed in the context of other knowledge, thus enabling a more comprehensive perception of the phenomena being studied. Literature reviews are of importance in healthcare as they facilitate the examination of healthcare research in its particular context juxtaposed with other similar research thus enabling a systematic evaluation of its impact. A revision of the literature provides the whole picture which may otherwise be partly hidden when an individual piece of research or information is examined in isolation. (Aveyard 2010.)

The objective of a literature review is to direct a reader to what explicit information there is about the topic as well as what information is lacking. It therefore validates the study while giving a point of reference about the topic in question. One should invariably begin with a question about the topic, collect the literature, evaluate the research and interpret the findings. The review should be impartial, which means studies cannot be excluded on the basis that their results are different from what the author expects or prefers. (Hedges & Williams 2015.) In addition, the review should be up to date and thorough (Polit & Beck 2010).

The existing literature on the key competencies of nurses caring for HIV/AIDS patients indicates that there is room for improvement in this field of nursing. As with all other fields of nursing, the nurse is the primary contact that the patient has. This primary contact should be able to provide unbiased, professional and quality patient-based care to all the patients. The study aimed to search, analyze and summarize current existing evidence on the key terms to answer the research questions.

4.2 Data collection

The data collection process was done using a qualitative method. The majority of the source material was from scientific journals in electronic databases though books and other web source materials were also used. The databases that were used by the author are; CINAHL, OVID, SAGE Premier, Ebook Central and Science Direct. The school's library database was very useful in data collection as it provided many scientific directories that significantly aided in the search for reliable data. In addition to the above scientific databases, authentic internet sources such as: WHO, UNAIDS, HIVPOINT, CANAC and THL were also used. Only fully accessible research articles that focussed on HIV/AIDS care that were published not more than ten years ago in English and Finnish, were used in the research process.

While planning the research and before the inception of the actual search the author used the key words; nursing competence, HIV/AIDS nursing, nurse role, people living with HIV, education and stigma to do a preliminary search for articles and a quick perusal of the results. On the basis of the results the final search terms to be used were decided on. The author chose the search words HIV, Nursing, competence, education, ethics and culture. The author combined the search terms using recommended Boolean operators to obtain the search terms, (HIV AND Nursing), (HIV AND Competence), (Nursing AND HIV) AND (Competence), (Nursing AND HIV) AND (Education), (Nursing AND HIV) AND (Ethics), (Nursing AND HIV) AND (Culture). The search terms were used to search the databases with a preference for searching the fields of Keywords, abstract and title where applicable. Whenever the searching of the three aforementioned fields did not return results, the abstract field was chosen for the search. A representation of the initial results of the search is shown in table 1 at the end of this sub-chapter.

The author then applied filters corresponding to the inclusion and exclusion criteria chosen to the search engines resulting in a reduction of the number of articles. A perusal of the titles enabled the author to further whittle down the number articles chosen for an inspection of their abstracts. The inspection of the abstracts for articles and table of contents for books enabled the author to determine their relevance to the research. Subsequently, the author read through the articles, as well as the introduction, and select chapters from the books. The author finally singled out a total of 22 articles and 12 books and 7 other reliable sources relevant to the research topic to be used in the research.

Table 1. Initial search results

Search terms	OVID	CINAHL	SAGE premier	Science Direct
(HIV AND Nursing)	777	4135	12	30371
(Nursing AND HIV) AND (Competence)	13	84	15	2504
(Nursing AND HIV) AND (Education)	143	1276	228	16383
(Nursing AND HIV) AND (Ethics)	12	153	43	4817
(Nursing AND HIV) AND (Culture)	26	113	110	11056

4.3 Inclusion and Exclusion Criteria

Through the use of inclusion and exclusion criteria the author is able to determine which literature addresses the research question and which does not. Clear and properly defined inclusion and exclusion criteria prevent the reviewer from getting distracted with data that are not relevant to the particular review. (Aveyard 2010.) The author made use of clearly defined inclusion and exclusion criteria that are described in the table below.

TABLE 2. Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
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Research articles published not more than ten years ago	Articles published more than 10 years ago
Research articles about HIV/AIDS, its management prevention and treatment.	Research articles that are not about HIV/AIDS, its management , prevention or treatment
Research articles related to nursing and HIV/AIDS	Research articles not related to nursing and HIV/AIDS
Research articles related to nursing skills and competencies	Research articles not related to nursing skills and competencies
Research articles that are available in full text	Research articles not available in full text
Research articles written in either Finnish or English	Research articles written in any language other than Finnish or English

4.4 Data analysis

The analysis of the available literature comprises of a critical scrutiny of the different sources resulting in a summary of knowledge on the topic. It is essential that researchers acknowledge their own biases and strive to be objective as this confers credibility to the research. The researcher's own perspective is admissible when it can be appropriately substantiated to the reader. However, objectivity becomes crucial during the writing of a Literature review. It is an imperative for researchers to regard both the positive and negative critically and be consistent in their methods. Keeping focus on the research question for the review will aid in producing effective conclusions. (Baker 2016.)

To ensure validity, only articles were used during synthesis of the findings. A total of 16 articles that the author later deemed most relevant and focused on the research questions were selected for the findings. The author reserved his opinions for the discussion and conclusion after synthesizing and writing the findings to maintain objectivity and avoid bias. The author strove to present the data gathered from the article faithfully and without misrepresentation so as to bring forth an understanding of the topic as clearly as possible. The author of this study carried out a careful content analysis as can be observed in the classification system

used in the presentation table of contents. Closely related data was divided into the main topics and sub-topics.

4.5 Ethics, Validity and Reliability

Evidence from research has a major role in influencing clinical decision-making regarding patient care. As such it is important for researchers to possess a thorough knowledge of research ethics in order to apply it effectively to the review. Researchers should be honest in their research practices. Research ethics serve the purpose of preventing errors, guarding against falsification or misrepresentation of the data and guaranteeing that researchers are accountable to their audience. There are three basic ethic principles applicable to literature review; Integrity, transparency and accountability.(Siu & Comerasamy 2013.)

To fulfill the principle of integrity researchers should declare their own biases, thus ensuring objectivity when framing research questions and choosing methodology. Possible conflicts of interest should also be declared and all methodological issues described honestly. Intellectual property should be respected and the work of other researchers should be duly acknowledged. Data should not be falsified, fabricated or misrepresented. Furthermore, researchers should strive to avoid discrimination especially during selection of criteria to be used in evaluation of the literature. The principle of transparency requires that researchers are open about methods employed in all appropriate stages of the research process so as to enable a replication of procedures by others. Transparency and openness is important in research as it helps to ensure that the research is accurate and reliable. Transparency also obligates the research to be accessible when required. Researchers are accountable for decisions made about evaluative criteria, accurate presentation of other researchers' literature rather than one's own opinions and the resulting findings including the resulting validity in regards to practice of their research.(Siu & comerasamy 2013.)

Throughout this study's research and data collection, the author referenced all the articles, as is acceptable in nursing research studies. The author avoided copying other people's works directly and instead, presented an understanding of these references and ensured that all the relevant scientific articles that were relevant to this topic were considered fairly. These sources were well quoted and referenced throughout the thesis. The author was unbiased

and reserved his own personal views and opinions for use only in the discussion and conclusion stages of the present nursing research work.

To ensure validity of the research, the author collected all the relevant data from reliable databases and sources. The author employed the key words introduced in this research paper in data collection and ensured that all articles used focused entirely on the research aims. To further establish validity relevant inclusion and exclusion criteria were employed in order to narrow down the results to the research topic. The author was transparent and honest in his description of the data collection and analysis methodology thus ensuring reliability of the research.

5 Findings

According to CANAC (2013), unethical conduct endures in the healthcare environment worldwide in regards to patient privacy and the divulgence of HIV status without consent. Furthermore, discrimination and stigmatization of people living with HIV persist in the healthcare setting with knowledge and education about HIV playing a major role in reducing stigmatization and discrimination (CANAC 2013; Cain et.al 2016; Naudet et.al 2017; Siou, Mahan, Cartagena & Carusone 2017). One of the major causes for the reluctance of healthcare providers to care for people with HIV was a fear of infection due to a poor understanding of HIV and in particular its modes of transmission (Naudet et.al 2017; Siou et.al.2017; Leyva-Moral et.al 2016). Work experience and previous contact with people living with HIV have also been found to lead to more positive attitudes towards people living with HIV (Leyva-Moral et.al 2016). The stigmatization of people living with HIV by healthcare professionals leads to a decline in medication adherence and retention in care causing the number of new HIV infections to rise; this in turn contributes to a lowering in the quality of life among people living with HIV in addition to a rise in morbidity and mortality (Frain 2016). In addition, healthcare avoidance due to stigmatization leads to negative consequences not only for people living with HIV, but for the entire population (CANAC 2013).

Nursing care for people living with HIV has grown to be more complex compounded by factors such as aging, illnesses such as cardiovascular disease as well as metabolic disorders associated with HIV (De santis, Balt & Blake 2014; Naudet et.al 2017; Siou et.al 2017). Furthermore, people living with HIV have an overabundance of psychosocial concerns that can be said to be exclusive to them. In addition, stigma and discrimination further affect their psychosocial functioning and wellbeing. Due to the complex nature of the physical and psychosocial nursing needs of people living with HIV, nurses providing care should have specialized knowledge and skills. (De santis, Balt & Blake 2014.) Globally, HIV prevention and care is shifting from specialized healthcare settings to primary care settings within communities. Thus to achieve the objective of the provision of care to all and to ensure the maximum benefit from treatment as prevention is gained, health care providers including nurses must have HIV competence. (Williams, Le, Colby, Le, Pollack & Cosimi 2014.) Furthermore, competencies for nurses caring for people with HIV should be adjusted to suit their scope of practice and care setting. Competencies should also be adjusted to suit local conditions such as the

composition of the workforce in the care setting so as to enable the best possible delivery of care. (Relf et.al 2011.)

HIV nursing should be guided by contemporary evidence together with the physical, psychosocial and spiritual needs of people living with HIV. The role of an HIV nurse can be extensive with a wide scope from prevention and testing to the provision of care, support and advocacy for people living with HIV from when they are newly diagnosed and on to adjusting to living well with HIV. In addition, appreciation of diversity is crucial in the role of the HIV nurse as is the ability to work in a multi-professional team. (Dean et. al 2013.) Patient outcomes for patients whose healthcare providers rate themselves as having medium or high cultural competence have been found to be better and feature fewer racial disparities as compared to patient outcomes of healthcare providers having lower ratings (Boehler et.al 2016). According to Pickles, King & de Lacey (2017) nurses' own values and social-cultural backgrounds may influence their perceptions of people living with HIV and thus affect the care they give, in addition, Leyva-Moral et.al (2016) claim that one's religious beliefs plays a role in one's attitudes towards people living with HIV.

Four major areas of competency emerged upon analysis of the data during the research. These were

- I. Etiology and medical knowledge of HIV
- II. Ethical, legal, psychological social and spiritual/religious.
- III. Psychomotor skills related to HIV nursing care
- IV. Professionalism

5.1 Epidemiology testing treatment and care of HIV

Nurses caring for people living with HIV should have the ability to exploit epidemiological data available locally, nationally and internationally to enable recognition of new trends in the epidemic and how these trends may affect current practice and HIV testing. Nurses should be able to apply current practice including those specific to special groups during management of HIV infection. (Boehler et.al 2015.) They are also expected to understand the main ways in which HIV is transmitted, the chain of infection of sexually transmitted diseases. In addition, they should have an understanding of normal immune function and immunosuppression

caused by HIV, how opportunistic infections take advantage of this as well as the progression of HIV, its classification and different stages and how HIV affects the body systems. (Harmon & Relf 2015.)

Nurses providing care to people with HIV should also be competent in the field of prevention. This includes counseling competence on the prevention of HIV as well as knowledge on the prevention of mother to child transmission (CANAC 2013). The most current information on post-exposure prophylaxis and pre-exposure prophylaxis is also required in conjunction with the skill to be comfortable to discuss detailed sexual histories so as not to miss out on opportunities to prevent HIV infection (Rowniak & Selix 2015). They should possess the necessary skills and knowledge about HIV testing, interpretation of results as well as pre- and post-test counseling. They should also be knowledgeable about antiretroviral treatment including methods of administration, possible drug interactions as well as their side effects, while also having the competence to address treatment adherence issues. (CANAC 2013; Boehler 2015.) In addition, also essential is general comprehension of HIV specific laboratory tests like CD4 count, viral load and their effect on care as well as the ability to communicate this effectively to the client (Harmon & Relf 2015; CANAC 2013). Nurses are also expected to be able to provide HIV related counseling relevant to their client's needs in all contacts with the healthcare system (Relf et.al 2011) including linkage to reproductive and mental healthcare services (CANAC 2013; Harmon & Relf 2015).

5.2 Ethical, legal, psychosocial, cultural and spiritual/religious competence

People newly diagnosed with HIV need support and encouragement to cope positively with HIV diagnosis and its psychological and social consequences with nurses expected to have the necessary skills to offer such support (Relf et.al 2011). Nurses are required to be respectful of diversity including but not limited to sexual orientation, gender identity, socioeconomic status, language, health practices, beliefs, values, lifestyles and cultures of people living with HIV and integrate these in holistic care plans underpinned by evidence based standards (Relf et.al 2011; CANAC 2013; Dean et.al 2013). Support is also needed from nurses by clients as they try to live positively and plan for life events as well as in decisions concerning revelation of their HIV status.

Nurses should also possess skills needed to combat HIV stigma in the community while also helping clients cope with HIV stigma (Relf et.al 2011). Nurses should not only be able to support their client's decisions to disclose their status but they should also be able to advise them on the possible risks and benefits associated with disclosure (Harmon & Relf 2015). The risk for HIV is not evenly distributed with certain populations having higher risks of infection (Rowniak & Selix 2015). This requires nurses to have the necessary competence to identify at risk individuals (Rowniak & Selix 2015) and to apply behavioural models or theories to diminish the risk of infection and transmission (Harmon & Relf 2015).

Nurses should also be in a position to provide counseling regarding sexual, familial and work related concerns to people diagnosed with HIV (Harmon & Relf 2015). Nurses are expected to be ethically competent and follow the core ethical principles of the nursing profession (Harmon & Relf 2015) with confidentiality being especially important for people living with HIV (CANAC 2013). Nurses follow the ethical principle of non-maleficence meaning the legal duty to do no harm. With some jurisdictions criminalizing HIV, it is necessary for nurses in these jurisdictions to be knowledgeable as to how these legal and ethical issues affect their practice (Phillips 2013). HIV criminalization is considered a controversial method of managing HIV that potentially impacts effectiveness of public health interventions. Nurses' knowledge of laws criminalizing HIV may affect their ability to provide the best care to people living with HIV as well as those at risk of being infected (Phillips 2016).

5.3 Psychomotor skills related to HIV nursing care

Nurses should be proficient with specimen collection techniques required for HIV and TB diagnosis such as venipuncture, finger stick and intradermal injection for TB skin testing as well as techniques required for HIV point of care testing. Proper knowhow on the use of standard precautions to prevent occupational infection and transmission should be demonstrated including proper disposal of sharps. However, nurses should also have sufficient knowledge on inappropriate use such as overuse, underuse and selective use of precautions. They should also be able to demonstrate clinical assessment skills pertinent to providing nursing care for opportunistic infections and diseases associated with HIV infection. However, they should also be proficient in psychosocial and spiritual-cultural assessment. Nurses should also have medication administration skills, adverse reaction knowledge as well as intravenous, subcu-

taneous and intramuscular injection techniques while simultaneously being capable of educating their clients in the aforementioned areas. Nurses should be able to educate their clients on the correct application and safe removal of both male and female condoms and their disposal as well as their effectiveness in preventing HIV transmission and other sexually transmitted infections. (CANAC 2013; Relf et.al 2011.)

5.4 Professionalism

Nurses are expected to abide by Ethical principles and values pertinent to the nursing profession. They should also have the ability to reflect on their own values, beliefs, culture, lifestyle and assumptions and recognize how they may influence their interactions with clients. They should have the professional skills to interpret evidence based information and apply it to practice when caring for people living with, at risk of or affected by HIV. Nurses should adhere to professional and practice standards in their area of practice such as practice guidelines, employer policies and protocols. Nurses should be proficient in documentation, communication and co-ordination of care provided to clients and have the skills required to collaborate with other multidiscipline members of the health care team. They should assist their clients to access local resources such as community programs for people living with, at risk of or affected by HIV. Nurses should be able to effectively mentor other health care providers who are involved in providing care to people living with HIV while being proactive in acknowledging how the HIV epidemic affects oneself as a caregiver. (CANAC 2013; Relf et.al 2011.)

6 Discussion

In this chapter, the author evaluates his research findings and those of other authors who have published works on HIV care and the key competencies required to effectively care for people living with HIV/AIDS. Under discussion of findings, the author expresses his opinion on the whole study then goes ahead to give his views on the implication of this study for nurses as well as, the lessons learnt while conducting the literature review and the possible limitations of the study.

6.1 Discussion of Findings

This study aimed at shedding light on the key competencies needed by nurses to take care of people living with HIV/AIDS. People living with HIV/AIDS still suffer stigma and discrimination especially from nurses while seeking treatment, with unethical practices such as breach of confidentiality continuing to endure among nurses. The attitude of nurses taking care of HIV/AIDS patients may be influenced by many factors. These include: cultural backgrounds, religious affiliations, ignorance of HIV causes, care and management thus leading to mal-practices that go against the core nursing values and ethics.

The author of this study maintains that the patient's primary and most common contact in any healthcare system is the nurse. Patients suffering from HIV/AIDS may not receive the best quality care and help that they are entitled to from nurses, leading to poorer patient outcomes and a decline in their quality of life. It may also cause health care avoidance where people living with HIV/AIDS may skip seeking health care due to negative experiences caused by stigma, discrimination and unethical behavior by unprofessional nurses. This would have negative consequences not only to the patient but also to the community as a whole, thus hampering efforts to contain the spread of the HIV epidemic.

6.2 Implication of the Study for Nursing

HIV/AIDS is still seen as a very complicated disease to properly manage. As the author discusses in the findings, nurses play a key role in the care process of people living with

HIV/AIDS. Although nurses have received proper education and guidelines for taking care of patients, more workshops and educative courses should be employed in the teaching methods to ensure every nurse is confident enough to deal with HIV/AIDS. Lack of comprehensive knowledge about the transmission of HIV was identified by several studies reviewed as a major contributor to the fear of occupational infection with HIV among nurses, thus leading to unethical stigmatizing and discriminatory attitudes among nurses towards people living with HIV. Ethical and cultural competence, were also deemed important with deficiencies in either resulting in a likelihood of negative consequences for people living with HIV and the population as a whole. Nurse training in standard procedures and precautions in preventing occupational infection of HIV as well as on the prospects of HIV transmission should be emphasized to help alleviate fear among nurses. Emphasis should also be placed on ensuring that nurses acknowledge the breaches of ethics that are still prevalent among nurses caring for people with HIV. Owing to the extensive psychosocial effects of HIV on people living with HIV due to socio-cultural influences, nurses should be made aware that their own socio-cultural backgrounds can affect their interaction with people living with HIV and efforts should be made to ensure that nurses are competent in cross-cultural interaction especially in regards to people living with HIV.

6.3 Learning Process

The research process was very informative to the author. The process of data collection, data sampling and analysis was time consuming and challenging as there was a large number of research articles on HIV/AIDS to narrow down to fit his topic, the key competencies essential for nurses in HIV/AIDS care. However, the researcher found the process very beneficial in furthering his understanding of how to do research. The author was able to put into practice the research theory and methodology learnt in class. Practice is the best instructor and the lessons learnt while doing the research will benefit the author in future research projects.

In the research of this literature review, there were lots of articles and interesting new facts that the author came across about HIV/AIDS. This led to the confirmation that there is still a lot of room for education on HIV/AIDS that nurses should study and fully understand in order to eradicate misconceptions about this disease. Educating nurses to learn better principles to

shape their minds on caring for people living with HIV/AIDS and respect the code of ethics as well as be culturally competent is the main idea highlighted by this thesis.

6.4 Limitations

The design of the search procedure regarding the number of source databases used and publication bias may have been a limitation in this study. The researcher's inexperience and the differing design of the database search engines may have affected the researcher's ability to properly follow the designed search procedure thus affecting the comprehensiveness of the search results. The large number of articles and time constraints may have affected the selection of the articles. The author only had access to articles that were available through the schools subscription; therefore some of the articles found during the search were unavailable to the author and thus could not be used in this study.

7 CONCLUSION

The study found that HIV is a complex disease that is further complicated by aging, a myriad of opportunistic infections as well as physical co-morbidities and syndromes that obligate nurses caring for people with HIV to have specialized skills in order to provide the best quality care. However, nursing competencies and the scope of practice for nurses caring for people with HIV should be modified to best satisfy local needs. This may be determined by the local conditions such as availability of resources as well as the magnitude and severity of the local epidemic. The evolution of HIV into a manageable disease combined with the shifting of its management from specialized care settings to primary settings raises the probability that non-HIV specialized nurses will encounter a person living with HIV at some point of their career. However, stigma and discrimination towards people living with HIV have been found to be still prevalent among nurses particularly those with insufficient knowledge and experience of HIV. The areas in which insufficiencies were found to have the greatest effect were found to be the risk of occupational infection and ethical and cultural issues in relation to people living with HIV. Thus it is imperative that the nursing community takes action to plug these gaps in knowledge so as to eradicate stigmatization and discrimination towards people living with HIV.

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Authors, title and year	Purpose of the study	Methodology	Findings
Boehler Malinda, Schechtman Barbara, Rivero Ricardo, Jacob Beth-Anne, Sherer Renslow, Wagner Cornelia, Alabduljabbar Salma A, Linsk Nathan L.2016.Developing the HIV Workforce: The MATEC Clinician Scholars Program.	Evaluation of Midwest AIDS Education and Training Center's (MAETC) 1-year competency-based Clinician Scholar Program for minority-serving providers with limited HIV care experience	Quantitative method	Baseline and endpoint self-assessments of clinical knowledge and skills showed significant improvements in all 11 targeted competencies, particularly in managing antiretroviral medications, screening and testing methods, incorporating prevention into HIV care, understanding risk reduction methods, and describing current care standards
Caine Vera, Mill Judy, O'Brien Kelly, Solomon Patricia, Worthington Catherine, Dykeman Margaret, Gahagan Jacqueline, Maina Geoffrey, De Padua Anthony, Arneson Cheryl, Rogers Tim, Chaw-Kant Jean.2016. Implementation Process of a Canadian Community-based Nurse Mentorship Intervention in HIV Care.	To describe salient individual and organizational factors that influenced engagement of registered nurses in a 12-month clinical mentorship intervention on HIV care in Canada.	Qualitative method	The inclusion of people living with HIV as mentors, the opportunities for reciprocal learning, and the long-term commitment of individual nurses and partner organizations in HIV care were major strengths. Challenges included the need for multiple ethical approvals, the lack of organizational support at some clinical sites, and the time commitment required by participants. Recommend that clinical mentorship interventions in HIV care consider organizational support, adhere to the Greater Involvement of People Living with HIV/AIDS principles, and explore questions of professional obligations.

Authors, title and year	Purpose of the study	Methodology	Findings
Canadian Association of Nurses in AIDS Care (CANAC).2013. Core Competencies for HIV/AIDS Nursing Education at the Undergraduate Level.	Call for the development of core competencies for HIV/AIDS nursing education at the undergraduate baccalaureate level of education	Position paper	Recommends that elective courses in HIV/AIDS nursing be developed and offered in high prevalence areas. In addition, clinical experience in HIV/AIDS nursing should be integrated to the curriculum in sectors where this is feasible and that undergraduate students get the opportunity to work with people living with HIV/AIDS during clinical rotations. CANAC recommends essential education in HIV/AIDS nursing for all undergraduate nursing students in Canada. As such it is the position of CANAC that core competencies in HIV/AIDS nursing care be integrated to undergraduate curricula across the country. The implementation of these core competencies is of utmost importance to ensure that future generations of nurses are prepared to provide care to people living with and at risk for HIV/AIDS.
Dean Judith, Staunton Shaun, Lambert Stephen, Batch Mary, Fitzgerald Warren, Leamy 2013. The Evolution of HIV Education for Nurses in Australia.	Describe the changes necessary in nurse education in Australia in response to the evolution of the HIV epidemic	Qualitative method	Changing HIV models of care means that education is needed for nurses practicing in a wide range of practice settings, especially in general practice, as these nurses are increasingly involved in the provision of care to PLWH. It is also important to provide graduate nurses with HIV knowledge and skills as they are the next generation of nurses to provide care for PLWH. Contemporary research is needed on the role, practices, and education needs of nurses to ensure that nursing education and models of care can continue to evolve to address the changing needs of nurses and PLWH in Queensland.

Authors, title and year	Purpose of the study	Methodology	Findings
De santis Joseph P, Balt Christine A, Blake Barbara. 2014. The Value of Certification in HIV/AIDS Nursing Revisited	To describe the value of certification in HIV/AIDS nursing in regards to the changes that have occurred within the HIV pandemic, nursing profession, and context in which HIV nursing care occurs in the 10 years preceding 2014.	Qualitative method-	The changing nature of HIV care and treatment over the past three decades has resulted in complex care needs for clients living with HIV. Certification in HIV/AIDS nursing demonstrates to the profession, other health care professions, and clients that certified nurses are prepared to meet the complex nursing care needs of clients with HIV infection.
Frain A. Judy. 2016. Preparing every nurse to become an HIV nurse.	The purpose of this study was to gauge the impact of utilizing speakers living with HIV, and HIV healthcare professionals in preparing undergraduate nursing students to care for patients living with HIV	Quantitative method	There was a significant difference in the overall scores in HIV knowledge after the education experience. Questions related to stigma on the HIV/AIDS Questionnaire for Health Care Providers also revealed statistically significant improvement. Results suggest the benefits of incorporating this curriculum addition as a method of HIV education into the undergraduate curriculum may make a tremendous impact on student readiness to care for persons with HIV.
Harmon James L, Relf Michael V. 2016. Entry-Level Competencies Required of Primary Care Nurse Practitioners Providing HIV Specialty Care: A National Practice Validation Study.	To design a national practice validation study to help prepare the next generation of primary care nurse practitioners who desire to specialize in HIV.	Quantitative method	Knowledge about the chain of infection of opportunistic infections and using knowledge about the HIV life cycle and structure in patient care could be incorporated into a specialty epidemiology and pathophysiology in an HIV specialty program. Clinical management courses in any nurse practitioner program should include content from the patient care and procedural skills-related domain: interpreting HIV testing results; implementing provider-initiated HIV counseling and testing; and implementing gender-specific, culturally relevant, evidence-based risk-reduction interventions

Authors, title and year	Purpose of the study	Methodology	Findings
Leyva-Moral Juan M, Terradas-Robledo Roser , Feijoo-Cid Maria , de Dios-Sánchez Rosa, Mes-tres-Camps Lourdes , Lluva-Casta Alicia, Comas-Serrano Mercè.2016.Attitudes to HIV and AIDS among students and faculty in a School of Nursing in Barcelona (Spain): a cross-sectional survey.	To determine atti-tudes to the care of People Living with Human Immunode-ficiency Virus (PLHIV) among students and facul-ty members in a school of nursing in Barcelona.	Quantitative method	Attitudes to the care of PLHIV among nursing students and faculty members were mainly positive. Some fears and mis-conceptions mainly concerning fear of infection and beliefs about transmission routes were found in both collectives.
Naudet D, De Deck-er L, Chiche L, Doncarli C, Ho-Amiot V, Bessaud M, Alitta Q, Retornaz F. 2017. Nursing home ad-mission of aging HIV patients: Challenges and obstacles for medical and nursing staffs.	HIV infection be-came a chronic illness. People can live with it for many years, with multiple comorbid condi-tions, frailty syn-drome, and polypharmacy. In-fected persons may require admission to a nursing home (NH) younger than geriatric patients because of their underlying medical and social status.	Quantitative method	Nearly one-third of the nursing home staff has reservations about the admission of HIV-positive patients. Nowadays healthcare workers in geriatric care are unaware of the latest developments regarding HIV, not only the medical but also the social aspects, and the consequences for the HIV-infected patient. We therefore must turn our efforts to staff training, particularly on the mode of transmission of the virus and the positive impact of treatment in decreasing the risk of HIV transmission to improve NH access to HIV-positive pa-tients.
Phillips Craig j.2013.“I Need My Nurse!” Nurses and the Criminalization of HIV in North Ameri-ca.	To discuss the criminalization of HIV in North Ameri-ca and how it af-fects nurses	Qualitative method	Nurses and nurse researchers can collaborate with PLWH and legal scholars to carry out re-search that explores the influ-ence HIV-specific laws have on the patient-provider relationship and the ability to achieve a mu-tually respectful therapeutic alliance

Authors, title and year	Purpose of the study	Methodology	Findings
Phillips Craig j, Domingue Jean-Laurent, Petty Marry, Coker Michael A, Howard Terry, Margolese Shari.2016. HIV Care Nurses' Knowledge of HIV Criminalization: A Feasibility Study.	To determine HIV care nurses' knowledge of HIV-related criminal laws	Quantitative method	Knowledge gaps were observed in several aspects of HIV-related criminal laws that can influence nursing clinical practices. Nurses should increase their knowledge of HIV-related criminal laws to ensure the success of population health initiatives and to reduce stigma and discrimination experienced by people living with HIV.
Pickles David, King Lindy, de Lacey Sheryl.2017. Culturally construed beliefs and perceptions of nursing students and the stigma impacting on people living with AIDS: A qualitative study	To report on a study that explored socio-cultural influences on the perceptions of international nursing students toward caring for people living with HIV/AIDS.	Qualitative method	Perceptions were influenced by complex, interrelated factors and underscored by culturally construed blame and othering. People living with HIV/AIDS were perceived as alien and assumed as homosexuals, drug users, or promiscuous. They were labelled 'bad people'. Many participants were compassionate but others struggled with differences between their personal values and professional values expected of a Registered Nurse. There was considerable variation in the degree to which participants were willing to embrace different perspectives and values.

Authors, title and year	Purpose of the study	Methodology	Findings
<p>Relf Michael V, Mekwa Julie, Chasokela Cynthia, Nhlengethwa Winnie, Letsie Elizabeth, Mtengezo Jasintha, Ramantele Keabitsa, Diesel Tony, Booth Christina, Deng Lisa, Mallinson R. Kevin, Powell Dorothy, Webb Adele, Yu-Shears Janette, Hall Carolyn, Aranda-Naranjo Barbara, Hopson Deborah Parham.2011.Essential Nursing Competencies Related to HIV and AIDS</p>	<p>To develop the essential nursing competencies related to HIV and AIDS.</p>	<p>Qualitative method</p>	<p>Identified four areas of nursing competencies in relation to HIV: Care, Treatment, and Prevention of HIV and AIDS; Psychosocial, Spiritual, and Ethical Issues related to HIV and AIDS; Psychomotor Skills Necessary to Provide HIV and AIDS Nursing Care and Professional Expectation Required of Nurses in the delivery of HIV and AIDS Nursing Care</p>
<p>Rowniak Stefan, Nancy Selix.2015.Preparing Nurse Practitioners for Competence in Providing Sexual Health Care</p>	<p>To describe a program for training Family Nurse Practitioner (FNP) students at the University of San Francisco (USF) that emphasizes developing competence in sexual health.</p>	<p>Qualitative method</p>	<p>Discussed the importance of competence in sexual health as an essential tool for HIV prevention. A model of how sexual health instruction and practical application can be imparted to the next generation of family nurse practitioners was presented. The study focused on family nurse practitioner instruction because that is the program in which the authors teach, and also because FNPs have a patient care role that allows for the discussion and exploration of sexual health when performing a history, physical examination, or follow-up communication.</p>

Authors, title and year	Purpose of the study	Methodology	Findings
Siou Kaitlin, Mahan Maureen, Cartagena Rod, Carusone Soo Chan.2017.A growing need – HIV education in long-term care	This descriptive study piloted two different approaches to distribute narrative-based HIV educational videos.	Qualitative method	HIV-related stigma still exists in long term care and these videos may be a strategy for disseminating basic knowledge about HIV transmission and sensitizing staff to the experience of living with HIV.
Williams Ann Bartley, Le Suu Thi, Colby Donn, Le Trang Thi Thu, Pollack Todd, Cosimi Lisa.2014.Effectiveness of Train-the-Trainer HIV Education: A Model From Vietnam	The purpose of this project was to develop and sustain a national network of nurse-trainers who could provide ongoing HIV continuing education and training experiences to Vietnamese nurses.	Quantitative method	Over the course of 6 years, 87 nurses received training to become HIV trainers; their HIV knowledge increased significantly ($p = .001$), as did teaching self-confidence ($p = .001$ to $.007$). The 87 nurses subsequently reported training more than 67,000 health care workers. Recipients of train-the-trainer-led workshops demonstrated increased HIV knowledge ($p = .001$) and increased willingness to provide nursing care for HIV-infected patients ($p = .001$). The program demonstrated that including a substantial amount of instruction in pedagogical strategies and experiential learning could enhance knowledge transfer, expand education outreach, and contribute to sustainable HIV competence among nurses.