PERCEPTION OF HEALTHCARE PROVIDERS ON HIV/AIDS IN OLDER ADULTS

by

Anisha Bharati

An Abstract
of a thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science
in the Department of Social Gerontology
University of Central Missouri

April, 2017
ABSTRACT

by

Anisha Bharati

This research looked at knowledge of health care providers on HIV/AIDS specific to older adults and their views on their roles in preventing or dealing with HIV/AIDS in older adults. Data were collected using semi-structured interviews of nine healthcare providers, two registered nurse (RNs), four licensed practical nurse (LPNs), and three certified nursing assistants (CNAs), working at a long-term care facility. Qualitative analysis indicated that the knowledge of HIV/AIDS specific to older adults in health care providers working in a long-term care (LTC) facility was low. According to interviewees educating and creating a safe environment are some of their roles in preventing HIV/AIDS in older adults. However, they do not perform these roles on regular basis; possibly due to the nature of the institute, its residents, and their job responsibility.
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April, 2017

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CHAPTER 1
INTRODUCTION

Overview and Statement of Problem

The Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) increased incidence among older adults in the United States both reflects population aging and suggests that older adults are sexually active and having unprotected sex. Why is HIV/AIDS prevalence increasing in older adults? There are two reasons for the increase in HIV/AIDS in the older adult population. The first one is due to the increase in life expectancy of people with HIV. People who have contracted HIV in their younger years are living longer due to the introduction of the highly active antiretroviral therapy (HAART) (Huang, 2013). Second, it is due to an increase in new cases of HIV/AIDS in older adults as a result of various factors related to behavior associated with HIV is transmittal, such as low rate of condom use (illa et.al, 2008), change in relational status (Durvasula, 2014; Tillman & Mark, 2015), sexual orientation (Campbell, 2013), injected drug use, or "IDU" (Whiteman, 2014), availability of erectile dysfunction treatments (Diba, 2006), and misdiagnosis (Maes & Louis, 2011; Turpin, 2012).

Individuals over the age of 65 are usually classified as older adults. In HIV research, people aged 50 and older are considered as older adults as they manifest premature aging (Deeks & Phillips, 2009). HIV has a unique clinical course as it is infectious and also requires chronic care as the disease advances. There are many problems HIV infected people have, such as physical, mental, and social problems that compromise the activities of daily living (ADLs). Thus, as the disease advances they are more likely to need long-term care (LTC). In the case of older adults with HIV, they need LTC even more than younger HIV infected people as they face
more problems because of old age and HIV/AIDS combined. Healthcare providers in LTC facilities are likely to have HIV/AIDS infected older adult residents. In 2014, the population of 50 and over accounted for about 17% of the estimated new HIV diagnoses in the United States (CDC, 2015b). As a result of this alarming statistic, it is important to investigate the knowledge healthcare providers have regarding HIV/AIDS in older adults and their role in preventing HIV/AIDS in older adults in order to decrease possible factors related to the rise of these new cases.

Although the older population is the largest and fastest growing segment of the United States, HIV/AIDS education publications that aim towards older adults are limited (Orel, Wright & Wagner, 2004). This results in limited knowledge about HIV/AIDS among older adults (Hillman, 2008). Hence, it is very important to educate older adults about HIV/AIDS, its transmission, and safe sex. It is essential to assess the knowledge healthcare providers have regarding HIV/AIDS and awareness of their role as they are expected to educate and provide care (Umeh et al., 2008).

Older adults usually consider HIV/AIDS to be a disease of younger people, thinking that contracting the disease will not happen to them. For the most part today’s older cohorts grew up with few worries about life threatening sexually transmitted infections (STIs). HIV was not identified as an STI until 1984 -- the year that the youngest of the baby boom cohort turned 20 (Hillman, 2012). Yet, the increased incidence of HIV/AIDS among older adults indicates that more of them need to be made aware of their potential risks of becoming newly infected with HIV. An effective way to reach older adults with information pertaining to their health would be
through their healthcare providers. Therefore, healthcare providers should possess adequate and accurate knowledge about HIV/AIDS in order to educate and provide care to older adults.

The knowledge of healthcare providers regarding HIV/AIDS in older adults is linked to decreasing possible risk factors related to the rise of these new HIV/AIDS cases in older adults. Similarly, the views of healthcare providers on their own role in preventing or dealing with HIV/AIDS in older adults also contributes to the rise of these new HIV/AIDS cases in older adults. If healthcare providers have knowledge about HIV/AIDS in older adults but do not think that it is their role to prevent it and promote safer sex, then there is greater chance of older adults engaging in behaviors that will increase the risk.

However, only a handful of studies have investigated healthcare providers' knowledge and perceptions of the increasing number of older adults with HIV/AIDS, and the related healthcare issues, or have sought to understand their views on their own roles in preventing HIV/AIDS in older adults in United States.

**Purpose of the Study**

The purpose of conducting this study is to explore the knowledge of healthcare providers on increasing number of older adults with HIV/AIDS and to identify the views of healthcare providers on their own role in preventing or dealing with HIV/AIDS in older adults.

As discussed earlier, the population of older adults is increasing and the prevalence of HIV/AIDS in older adults is also increasing. As the individual ages, the chance of having chronic diseases also increases. In addition, the development of HIV to AIDS damages the immune system and makes them vulnerable to opportunistic diseases. This causes decreases in ADLs and increases the need of LTC. According to Frankowski & Clark (2009), LTC facilities have
minimal policies regarding sexuality although sexual activities occur in the facilities. The healthcare providers typically follow informal policies. The classic policies followed by LTC facilities regarding residents’ sexual activities specify that healthcare providers are expected to leave quietly when they observe sexual activities in residents’ room, and the family members are informed (Frankowski & Clark, 2009).

Some in the healthcare field would propose that a healthcare provider’s response should not be limited to just leaving the room after observing sexual activities. Rather, it might be argued that healthcare providers should also become involved in educating the individual about different forms of STIs -- including HIV/AIDS – and how they are transmitted, how they can be prevented, and discuss condoms and how to use them. This view of the role of healthcare providers comes from a “health promotion model” of healthcare. According to the health promotion model designed by Nola J. Pender (Heydari & Khorashadizadeh, 2014), healthcare providers’ actions can modify individual behavior to bring changes that are required for well-being. Thus, it is very important for healthcare providers to have knowledge about how STIs in older adults can be prevented and what they can do to prevent STIs, especially HIV/AIDS.

A one-on-one in-depth interview of healthcare providers working with older residents was conducted. The results of this research should increase the understanding of healthcare provider knowledge of HIV/AIDS in older adults, know how they can prevent it, and whether they view the prevention of HIV/AIDS as their responsibility.
CHAPTER 2
LITERATURE REVIEW

The purpose of this study is to investigate the knowledge healthcare providers have regarding HIV/AIDS in older adults and their role in preventing HIV/AIDS in older adults. The review of the literature will focus on the following areas: HIV in older adults; the health promotion model; risk factors of HIV/AIDS among older adults; healthcare providers’ knowledge of HIV/AIDS in older adults; and the roles of healthcare providers in preventing HIV in older adults.

Sexually Transmitted Infections (STIs) in older adults

STIs are “infections that are spread primarily through person-to-person sexual contact” (WHO, con2016b, p. 1). Of the eight most common STIs, four are currently curable: chlamydia, gonorrhea, syphilis, and trichomoniasis; the other four are viral infections and are incurable: hepatitis B, herpes, HIV, and human papillomavirus (HPV) (WHO, 2016b). The majority of STIs occur among adolescents and young adults, and older adults often are not considered to be at risk even among healthcare providers (Calvet, 2003). For this reason, STIs in older adults tend to remain undetected longer and older people are often neglected in campaigns or other efforts to disseminate information about the risks.

Overview of HIV

HIV, which if left untreated can lead to the disease AIDS, is one of the most serious global public health issues. Since the beginning of the epidemic, more than 70 million people have been infected with the HIV virus, and about 35 million people have died of HIV worldwide (WHO, 2016a). According to the World Health Organization (2016a), globally about 1.1 million
people died from HIV in 2015. Worldwide there were approximately 36.7 million people living with HIV in 2015 (WHO, 2016a).

The burden of HIV/AIDS is also high in the United States. According to the Centers for Disease Control and Prevention (CDC) (2016c), in 2014 approximately 44,073 people were diagnosed with HIV infection in the United States. More than 1.2 million people in the United States are living with HIV, and one in eight of them are unaware of it (CDC, 2016c). Gay and bisexual men are the most affected, and African Americans have the highest prevalence rate of HIV (CDC, 2016c) in United States.

**HIV in Older Adults**

In HIV research persons with HIV or AIDS are usually classified as older adults upon reaching age 50, as they manifest premature aging (Deeks & Phillips, 2009). Yet, the number of HIV/AIDS patients 50 years and over has been increasing. Today, older adults living with HIV comprise two groups: Those who were infected at younger ages but are surviving longer with treatment, and those who become HIV infected in midlife or later (Neundorfer, Harris, Britton, & Lynch, 2005).

In 2014, persons aged 50 and over accounted for about 17% of the estimated new HIV diagnoses in the United States (CDC, 2015b). Table 1 shows the breakdown of these newly diagnosed cases by age. Among older adults, those aged 50-54 had the largest number of new HIV diagnoses, about 3,242 (CDC, 2015b).

There are racial, gender, and regional disparities in the number of HIV/AIDS cases among older adults. The HIV incidence rate is highest in older African Americans (for example, 45.6 per 100,000 in 2014). Also, men are more likely to have HIV than women (in 2014 males
accounted for 81% of all diagnoses). In 2014 the southern United States accounted for the greatest number of HIV cases among all older persons, with rates of 18.5 compared to 14.2 in the Northeast, 11.2 in the West, and 8.2 in the Midwest (Abara et al., 2014; CDC, 2015b).

<table>
<thead>
<tr>
<th>Age at diagnosis (yr.)</th>
<th>Reported No.</th>
<th>Estimated No.</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-54</td>
<td>2,928</td>
<td>3,242</td>
<td>14.4</td>
</tr>
<tr>
<td>55-59</td>
<td>1,949</td>
<td>2,166</td>
<td>10.1</td>
</tr>
<tr>
<td>60-64</td>
<td>960</td>
<td>1,069</td>
<td>5.8</td>
</tr>
<tr>
<td>65 and above</td>
<td>819</td>
<td>914</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Table 1. Diagnosis of HIV infection, by year of diagnosis, 2014-United States

As we age, the immune system becomes weaker so the progress of HIV to AIDS is usually rapid in older adults, and older adults have shorter survival times than younger people (Abara et al., 2014). In addition, older adults are at greater risk for misdiagnosis and consequently a delayed treatment. As a result of late diagnosis, older adults generally have a more advanced disease than their younger counterparts at diagnosis (Kirk & Goetz, 2009). The combination of the increased incidence and rapid progress of HIV/AIDS in older adults brings various clinical challenges in term of prevention, caring for those infected, and monitoring changes in health. The burden on the healthcare system will proliferate and a model of care delivery that targets older adults will be needed (Durvasula, 2014 c).

**Health promotion model**

The health promotion model was designed by Nola Pender (Heydari & Khorashadizadeh, 2014) and this model promotes good health and well-being rather than simply the absence of disease (Petiprin, 2016, Heydari & Khorashadizadeh, 2014). The end point and desired outcome of the health promotion model is for individuals to act in ways that will improve their health,
enhance their functional ability and provide optimal quality of life at all stages of development (Petiprin, 2016).

According to the health promotion model, individuals have unique personal characteristics and experiences that affect their actions, which can be modified through healthcare providers’ actions. Older adults must have knowledge about HIV/AIDS to provide an incentive to practice safe sex and engage in healthy behaviors. Healthcare providers can bring changes in older adults’ behavior through their influence. It is the responsibility of healthcare providers to educate older adults about HIV/AIDS. They can make older adults aware of certain things, including (a) knowing what the disease is, and how it is contracted; (b) realizing they are susceptible; (c) understanding how serious the disease is; and (d) knowing how to prevent it. In order to provide this education, healthcare providers should have knowledge about HIV/AIDS and should perceive that prevention of HIV/AIDS is one of their roles.

**Risk Factors of HIV/AIDS in Older Adults**

There is a stereotype that older adults are less at risk for contracting HIV, despite evidence that risky behaviors continue with age. According to Hillman (2012), at the beginning of the HIV/AIDS epidemic the greatest risk of HIV in older adults was through blood products. The introduction of testing of blood in 1985 decreased the chance of HIV infection via blood products (Hillman, 2012). In the present day, changes in social practices, such as increasing divorce, multiple partners and impotence treatment provides older adults the opportunity to be sexually active in later years (Brooks, Buchacz, Gebo, & Mermin, 2012; Durvasula, 2014) and through increased risk of contracting HIV/AIDS through unprotected sexual contact.
Older adults’ sexuality: There are a number of reasons why older adults are getting HIV/AIDS infection. The main reason is older adults are sexually active. There is myth that older adults do not have sex. Although sexual activity declines as we age, a significant number of older adults remain sexually active after age 65 (Pilowsky & Wu, 2014).

A national probability sample conducted in 2007 of 3,005 U.S. adults (1,550 women and 1,455 men) aged 57 to 85, found that most older adults were sexually active, although men were more likely to be sexually active than women at all ages (see Table 2). Similarly, the National Survey of Health and Behavior (2009) showed 20 to 30% of both men and women remained sexually active even in their eighties (Pilowsky & Wu, 2014).

<table>
<thead>
<tr>
<th>Age in years</th>
<th>Sexual activity with a partner in the previous 1 year</th>
</tr>
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<tbody>
<tr>
<td></td>
<td><strong>Men</strong></td>
</tr>
<tr>
<td>57 - 64</td>
<td>83.7</td>
</tr>
<tr>
<td>65 - 74</td>
<td>67.0</td>
</tr>
<tr>
<td>75 - 85</td>
<td>38.5</td>
</tr>
</tbody>
</table>

*Percentage given are estimates based on reported cases, (Pilowsky & Wu, 2014)*

Change in relational status: Another reason for increased risk of HIV/AIDS among older adults is change in relational status because of divorce or death of a spouse. Older adults who are single are more likely to acquire new partners. Older adults in newer relationship usually have multiple partners. According to Durvasula (2014), about 67% of older women said that they were not in a committed relationship compared to 38% of younger women. Similarly, according to a nationally representative study of social relationships, sexuality and health in later life in the USA, about 10% of older adults (57–85 years) were revealed to have at least one new sexual partnership in the previous five years (Tillman & Mark, 2015). Older adults may have a had monogamous relation for a long time and may be seeking new partners after they are gone. So,
they may be less forthcoming in discussing issues regarding safe sex with their new partners and even fear that discussing these issues could hamper their relationship (Durvasula, 2014).

**Condom use:** The prevalence of condom use decreases for older adults as many women are menopausal, which usually occurs in their fifties (Liu, 2012), and are therefore no longer at risk of pregnancy (CDC, 2016b; Whiteman, 2014). Older adults usually link condom use with contraception. They are less likely to perceive condoms as barriers to STIs and HIV. Menopause can increase women’s STIs risk in other ways. After menopause, there is reduction in estrogen level which cause narrowing and shortening of the vagina, thinning of the vaginal wall, loss in elasticity, and decrease in the production of lubricants making the vagina become dry and prone to cracking and tearing (Aging of the female reproductive system, 2015). As HIV is transmitted through body fluid and blood, this cracking and tearing of vaginal tissues tends to facilitate HIV transmission. Thus, older women are at more risk of HIV. Older adults who do not practice safe sex put themselves at HIV risk without knowing.

According to a survey conducted with 210 sexually active HIV positive older adults (125 men and 85 women), approximately 21% reported not using condoms; 33% reported having multiple sexual partners in the preceding six months (Illa et al., 2008), both considered behaviors that increases the risk of HIV infection. Likewise, a cross sectional survey conducted of 624 men (268 HIV negative and 356 HIV positive) showed that risky sexual behaviors were common in HIV negative men, such as, low use of condoms. Only 18% of HIV negative men “always” used a condom compared to 57% of HIV positive men (Pilowsky & Wu, 2014). In contrast, one survey of 541 HIV positive adults suggested that condom use did not decrease significantly with
age, with 88% of those aged 18-35 and 82.4% of those 50 years and older reporting using a condom (Onen, Shacham, Stamm, & Overton, 2010).

There are many barriers to condom use in a variety of vulnerable populations, for example, African-Americans (Peterson, Bakeman, Blackshear, John, & Stokes, 2003); older women (Neundorfer et al., 2005, Durvasula, 2014) and HIV positive adults (Coleman & Ball, 2015). A study conducted to find the determinants of perceived barriers to condom use among HIV-seropositive African-American middle-aged and older male participants found that those who were single and experienced fewer HIV symptoms were more likely to engage in unprotected sex (Coleman & Ball, 2015). Consequently, being relatively symptom free actually deterred condom use, acting as a barrier.

According to Sarkar (2008), several factors were associated with non-use of a condom during sexual intercourse. Cost often posed a barrier to condom use for the poor, even in developed countries; moral values and ethnic and religious factors also played a role in many communities. Among other social factors, gender inequality, lack of a dialogue among partners with regard to condom use (Neundorfer et al., 2005), and the stigma attached to use of condoms could all lead to unprotected sexual intercourse (Sarkar, 2008). Personal factors such as aversion to using a condom, consumption of alcohol or use of drugs prior to sexual intercourse, and anxiety and depression all were negatively associated with condom use. Similarly, Peterson et al. (2003), also mentioned alcohol consumption, unexpected sex, reduction of pleasure, and lack of knowledge in effective use of condom as barriers to use of condoms.

Sexual Orientation: Sexual orientation plays an important role in HIV in older adults. In most Latin American countries, the United States, Canada and some Western European countries
sex between men accounts for the majority of HIV transmission (Campbell, 2013). However, among women the higher rate of HIV/AIDS is among those in heterosexual relationships.

Men who have sex with men (MSMs) are the population most affected with HIV, as gay and bisexual men are 44 times more likely to have HIV than their heterosexual counterparts (Campbell, 2013). In the United States MSMs make up only about 2% of the adult population, yet account for a huge portion of people affected by HIV (CDC, 2015a). According to the CDC (2015b), MSMs are the highest HIV-transmission category among older adults (see Table 3).

### Table 3. Diagnosis of HIV infection, by transmission category, 2014-United States\(^a\)

<table>
<thead>
<tr>
<th>Age at diagnosis (yr.)</th>
<th>Male-to-male sexual contact (MSMs)</th>
<th>Injected Drug Use (IDU)</th>
<th>Male-to-male sexual contact + IDU</th>
<th>Heterosexual</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Adult</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-54</td>
<td>1,175 1,772</td>
<td>102 198</td>
<td>51 77</td>
<td>254 415</td>
<td>646</td>
<td>3 2,228 2,464</td>
</tr>
<tr>
<td>55-59</td>
<td>623 1,004</td>
<td>83 173</td>
<td>32 48</td>
<td>150 294</td>
<td>481</td>
<td>2 1,369 1,521</td>
</tr>
<tr>
<td>60-64</td>
<td>308 403</td>
<td>48 92</td>
<td>15 22</td>
<td>80 166</td>
<td>239</td>
<td>3 690 766</td>
</tr>
<tr>
<td>65 &amp; over</td>
<td>232 396</td>
<td>24 74</td>
<td>3 8</td>
<td>88 193</td>
<td>269</td>
<td>8 611 690</td>
</tr>
<tr>
<td>Total</td>
<td>2,338 3,575</td>
<td>257 537</td>
<td>101 155</td>
<td>572 1,068</td>
<td>1,635</td>
<td>16 4,898 5,441</td>
</tr>
</tbody>
</table>

| Female Adult           |                                   |                        |                                 |              |       |       |
| 50-54                  | - -                               | 53 114                 | - -                             | 301 662      | 346    | 2 700 778 |
| 55-59                  | - -                               | 40 95                  | - -                             | 241 549      | 299    | 1 580 645 |
| 60-64                  | - -                               | 18 45                  | - -                             | 108 257      | 144    | 1 270 303 |
| 65 & over              | - -                               | 10 34                  | - -                             | 81 199       | 117    | 1 208 233 |
| Total                  | - -                               | 121 288                | - -                             | 731 1,667    | 906    | 5 1,758 1,959 |

\(^a\)CDC (2015b)

**Injected Drug Use:** The main reason for heterosexual HIV is injected drug use (IDU) and the most affected heterosexual gender is women. According to the CDC (2015a), IDU attributed 8% (3,900) of new HIV infections in the United States and more than half of IDU users were men. The rise in IDU infections in heterosexual men has led to the rise in HIV infections in women due to low condom use as women have no say because of gender inequality, sexual
abuse and women take risk for the sake of relationship (Neundorfer et al., 2005, Sarkar, 2008). With increasing age, men may experience erectile dysfunction (ED). As a result, older men tend to avoid using condoms during sexual intercourse and increase the risk of HIV (Whiteman, 2014).

**Availability of Erectile Dysfunction Medication:** Erectile Dysfunction Medicine (EDM) has effectively treated ED making older adults sexually active for longer periods of time. The Food and Drug Administration (FDA) has approved three oral medications for the treatment of ED: sildenafil (Viagra), tadalafil (Cialis), and vardenafil (Levitra). These medications effectively treat ED of various etiologies and are widely used (Harte & Meston, 2011). However, the trend to use ED medication recreationally and as a sexual enhancement aid among men is increasing. This phenomenon is association with increased sexually risky behavior.

MSMs often receive the ED drug outside the care of healthcare providers. According to Diba (2006), MSMs who use ED medication are 2-6 times more likely than nonusers to engage in unprotected anal intercourse and have a higher number of sex partners during the past 1–2 months. The use of EDM increases the risk of sexually transmitted infections (STIs), including HIV infection by twofold (Diba, 2006). In the same way, in heterosexual men, EDM users were more likely than men who had never used EDM to be sexually active, have multiple female partners or casual sex, anal intercourse with a casual or anonymous female partner, and have an IDU female partner. Sexual risky behavior and low use of condoms (Krawczyk et al., 2006) in the user of EDM puts them in risk of HIV/AIDS.

**Barriers to diagnosis and treatment:** There are many barriers to diagnosis and treatment of HIV/AIDS in older adults. HIV is under reported in older populations mainly because of
misdiagnosis. Older adults are at lower clinical suspicion in relation to risk behavior than younger adults (Martin, Fain, & Klotz, 2008). Although older adults visit their healthcare providers more frequently than younger adults, they are less likely to discuss sex habits with their doctors; in turn, their doctors do not initiate the conversation about safe sex practices (CDC, 2016b).

A survey of a random sample of 500 American Academy of Nurse Practitioners (AANP) members found that only two percent “always” assess for sexual practices of their patients who are 50 and older (Maes & Louis, 2011). However, a cross-sectional, quantitative study of 42 physicians at a local hospital showed 95% of physicians reported that they provide some sexual risk behavior education at least weekly (Turpin, 2012). Lack of time (59%), interruptions (30%), limited communication skills (29%), claims that sexual histories are not appropriate with patients 50 and older (3%), and feeling embarrassed (6%) are some of the reasons nurse practitioners avoid sexual history taking practice (Maes & Louis, 2011). Common barriers to educating patients about risky sexual behavior are the patient not speaking English fluently (Turpin, 2012) and the patient’s partner or family members being present (Turpin, 2012, Taylor & Gosney, 2011). Lack of proper preparation and lack of education surrounding the sexual needs of elderly institutionalized people also add to barriers in communicating with older patients about their sexual activity (Maes & Louis, 2011, Taylor & Gosney, 2011).

A factor that contributes to new cases of HIV/AIDS in older adults is their lack of knowledge of HIV/AIDS and safe sex practices. Many older adults have inaccurate knowledge regarding HIV transmission and almost no knowledge of early symptoms of HIV infection.
(Hillman, 2008). Older adults also believe that the use of condoms in a romantic relationship would be rejected.

Last but not least, a barrier to HIV diagnosis and treatment is low rate of infection testing. Typically, older adults only get tested for sexually transmitted infections if they report genital-related symptoms, rather than as part of a routine screening or a recommendation from healthcare providers (Hillman, 2008; Tillman & Mark, 2015). However, the CDC recommends that everyone between the ages of 13 and 64 get tested for HIV at least once as part of routine healthcare (2016d). There is no recommendation for HIV testing in people aged 65 years and older. Hence, HIV/AIDS testing in older adults is low and older adults are unaware of their infection. So, there is a very high chance in transmission of HIV/AIDS through them.

Moreover, the symptoms of HIV often are mistaken as normal aging. Misdiagnosis often results in a late diagnosis of HIV and may result in an undiagnosed person's continuing to engage in unprotected sex, unaware of the infection. It also increases morbidity and mortality, as well as increasing healthcare expenditures (Mugavero, Castellano, Edelman, & Hicks, 2007).

**Problems associated with HIV/AIDS**

There are many problems that people living with HIV/AIDS infection face, such as physical problems, social problems, psychological problems, and spiritual problems (Nakawesi et al., 2014). Physical problems included management of different health problems. The physical problems seen in HIV are due to early manifestations of age associated disease, opportunistic infection or the side effects of HAART (Ball, 2014). The common health problems seen in people with HIV/AIDS are heart diseases, especially myocardial infarction, liver failure due to drug toxicity, and osteoporosis. It is also seen that the incidence of cancer is higher in the HIV
infected people than in the uninfected counterparts. There is a significant effect of aging and HIV/AIDS on the immune system. The combination of these makes older adults with HIV infection more susceptible to opportunistic infections (Cahill & Valadez, 2013).

Social problems are another challenge for people with HIV/AIDS. Stigma related to HIV and social discrimination associated with the disease decreases the quality of life for people with HIV/AIDS. People with HIV/AIDS often report poor social support, financial instability and neglect, and many are found to have psychological problems (Nakawesi et al., 2014). For example, HIV infection increases the risk for depression in the aging population. Stigma and prejudice add a sense of isolation in older adults. It prevents them from interacting with people or going to public places, like community activities and church (Ball, 2014). Further, HIV has adverse effects on the brain, which makes people with HIV susceptible to cognitive impairment like dementia and Alzheimer’s disease (Cahill & Valadez, 2013). These lead to problems in ADLs and increase the need of LTC in older adults with HIV/AIDS.

**Knowledge of Healthcare Providers in prevention of HIV in older adults**

“Healthcare provider” is defined as a professionally trained individual who is authorized to practice by the state and performing within the scope of their practice as defined by state law such as doctor of medicine or osteopathy, clinical psychologist, nurses or a clinical social worker (Who is considered a Healthcare Provider/Practitioner, 2016). As suggested by the health promotional model, healthcare providers play an important role to encourage the behavior changes needed to stem the spread of HIV infection. Therefore, it is very important for them to have proper knowledge, and they should be aware of their role.
Usually, HIV/AIDS-related issues stimulate strong emotional reactions, including anxiety and withdrawal (Umeh, Essien, Ezedinachi, & Ross, 2008). Thus, the workers' attitudes to such issues must indicate their level of preparedness in caring for people with HIV/AIDS. It is very important that the healthcare providers have accurate knowledge of the disease as they are expected to provide care and accurate information on this subject matter to patients, their family members as well as to the community (Umeh et al., 2008). It is seen that the healthcare providers have neutral attitudes towards older adults, but are unaware of the unique, increased risk factors associated with HIV/AIDS infection among older adult (Hillman, 2008). So, they show bias behavior, they are less likely to talk to older adults regarding sexual history, sexuality, drug use, and HIV testing (Hillman, 2008).

Hughes (2011) found that knowledge of issues specific to older adults with HIV/AIDS was low in a national sample of physicians, nurses, and social workers who specialized in gerontology or geriatrics. In general, physicians had more knowledge than nurses and social workers. But, various factors influence healthcare professionals’ level of knowledge. For example, previous experience with HIV/AIDS patients, having friends and significant others with HIV/AIDS, willingness to provide care, and length of education all have been found to positively correlate to knowledge about HIV/AIDS. Whereas, number of years working as healthcare providers has a negative relation to level of knowledge (Suominen et al, 2010). In contrast, Makhado, & Davhana-Maselesele (2016), found HIV knowledge scores across all nursing categories averaged 81% correct, although 59% of the participant had not received specific training in HIV/AIDS.
There is a significant relation between the level of knowledge and attitudes. The higher the knowledge levels, the healthcare providers showed most positive attitudes towards patients with HIV/AIDS (Suominen et. al, 2010). They did not discriminate older adults based on their diagnosis. They believed everyone has right to healthcare and should be treated equally. Hence, it is important for healthcare provides to have adequate knowledge so that discrimination and abuse can be prevented in older adults with HIV/AIDS.

**Role of Healthcare Providers in Prevention of HIV in Older Adults**

There are various roles that healthcare providers can take in assisting with the prevention of HIV in older adults. According to Jeffers & DiBartolo (2011) and Hillman (2008) healthcare providers may use the following strategies: 1) acknowledge STDs and HIV/AIDS in sexually active persons over age 50; 2) include sexual health and risky behaviors in their assessment of those age 50 and older; 3) create a safe and confidential environment which reflects their positive attitude; 4) develop educational programs to increase discussion of HIV awareness, strategies for prevention like HIV testing and condom promotion, and treatment options in a variety of settings; 5) assist older adults to cope and manage a diagnosis of an STI or HIV; and 6) promote dissemination of information about older adult sexuality, including STIs, at community health fairs and older adult living sites.

While looking at the incidence and problems associated with HIV/AIDS in older adults, it is vital to know more about whether healthcare providers who work with same older adults in regular basis have knowledge and provided required information to bring change in older adults’ behavior. As mentioned earlier in this literature review the main focus of this research study is to determine knowledge of healthcare providers and their perceived role in preventing HIV/AIDS.
in older adults. The following chapter outlines the methods used to collect data and the procedures used in analysis.
CHAPTER 3
METHODOLOGY

As the review of scholarly articles showed, research on the knowledge of healthcare providers about HIV/AIDS specific to older adults is scarce. Furthermore, studies of healthcare providers’ views about their roles in preventing HIV/AIDS in older adults is very limited. This study uses a qualitative approach in interviewing healthcare providers (RNs, LPNs and CNAs) who work with older LTC residents in order to see what these workers know about HIV/AIDS among older adults in the United States, as well as their perceptions regarding their roles as healthcare providers in preventing HIV/AIDS among older LTC residents.

Research Questions

This research study focused on the following research questions:

1. What is the healthcare providers’ knowledge level of HIV/AIDS in older adults?
2. What are the views of healthcare providers on their own role in preventing or dealing with HIV/AIDS in older adults?

Interviews were conducted with nine healthcare providers (two RNs, four LPNs and three CNAs) working with older residents at a LTC facility, and used a qualitative approach to interpret results.

Informant Selection

The researcher first contacted several LTC facilities (see APPENDIX A) situated within a rural county in a Midwestern state, and also from a mid-sized state university (see APPENDIX B) in that same county, for permission to recruit potential interviewees among healthcare
providers working with the elderly. Permission to recruit participants was obtained from one LTC facility and from one department chair. Flyers were distributed (see APPENDIX C) that briefly described the project and announced the opportunity for healthcare providers who worked closely with older adults to volunteer to be interviewed. The informants who agreed to participate were selected using a purposive sampling method; in other words, qualified informants had to be healthcare providers and had to have at least a year’s experience providing care to older adults. For this study the researcher selected nine healthcare providers who had worked at least one to two years closely with older adults in the participating LTC facility. The sample included two RNs, four LPNs, and three CNAs.

Informants who had been interested and were selected for the research study were given a hard copy of the informed consent form (see APPENDIX D), and asked to review the document, ask questions and decide if they still want to participate in the study. After obtaining the signed informed consent form from the participants the researcher assigned a nominal code for each interviewee. The researcher also obtained permission from each participant about using excerpts from interviews to use the information for written research papers or presentations.

Data Collection

Data were collected using a one-on-one in-depth interview method. Nine healthcare providers who worked at the selected facility were interviewed. The informants were interviewed individually in a private setting. While interviewing, the researcher acquired permission to audio

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1To increase the opportunity to locate eligible elder care healthcare providers, university students enrolled in gerontology-related classes were e-mailed about the study. After follow-up face-to-face meetings with classes and distributing flyers, no students volunteered to participate. Finally, because only one facility gave permission for the researcher to recruit for the study, all members of the sample worked at the same LTC facility.
tape the interview to use it for later transcription and analysis. The researcher also took field notes.

**Interview Schedule**

The interview schedule consisted of 25 to 30 questions focused upon STIs, especially HIV/AIDS in older adults and the role of healthcare provider in preventing its spread (see attached Appendix E). The questions in the interview schedule were guided by the research questions. Selection and wording of the question were influenced by a recent study conducted by Hickey (2008) who sought to find out why older adults in the Midwest are potentially left out of HIV/AIDS prevention and campaigns. Some of the questions that were relevant to that study were used in exactly the same manner for this study.

In this research study, the interview schedules were designed to allow the healthcare providers to answer and give their perceptions on HIV/AIDS in older adults, as well as to share their views on what they think is their role in HIV/AIDS prevention in older adults.

**Data Analysis**

First, the researcher transcribed the interviews and coded responses so that answers to her research questions could be found. The researcher uncovered patterns in respondents’ responses about HIV/AIDS in older adults and factors that contribute in its transmission. Then, proclaimed roles of healthcare providers were pinpointed as stated by each respondents. The health promotion model was used as a framework to understand the role of healthcare providers in the prevention of HIV/AIDS in older adults. This analysis helped answer what those who work with older adults see as their role in preventing HIV/AIDS in those older adults. As stated, in the final analysis the researcher organized respondents’ comments about their role in
HIV/AIDS prevention in older adults into areas: (1) Education, and (2) Creating a safe environment.
CHAPTER 4

FINDINGS

Characteristics of the Sample

Participants for the study worked at a LTC facility of about 113 beds and included areas for skilled nursing care, as well as for assisted-living types of care. Over 90% of the residents were white, non-Hispanic. The female-to-male ratio was about three-to-one. The facility employed three RNs, nine LPNs and 20 CNAs.

Study participants included a total of nine healthcare providers: Two RNs, four LPNs, and three CNAs. Therefore, the interview sample contained 67% of the RNs at the facility, 45% of the LPNs and 15% of the CNAs. The two RNs in the study had gone to a nursing school; they also held a college degree and registered nurse license. One out of four LPNs had a bachelor’s degree, two had a high school diploma and went to nursing school for a year, and one LPN left high school without graduating but completed nursing school. All three CNAs had completed some college work and were in the process of going to nursing school. All informants had passed their state board exams and held licenses according to their current job title.

The working experience of healthcare providers ranged from a year to 14 years in the current job title. There were only two male healthcare providers, and the rest were female. Ages ranged between early twenties to mid-fifties.

The job duties of the healthcare providers depended upon the job title they held. The RNs were directors of nursing, and were responsible for the entry of the residents, handling Medicare and Medicaid, and other administrative work. When asked what their job responsibility was, RN1 replied:
I am responsible for everybody that comes in to this facility; they should be approved by me or another director of nursing. I also handle Medicare or Medicaid and I am responsible for recruiting LPNs and CNAs.

Similarly, RN2 said:

Generally, my responsibility is for administrative work, like planning, developing and organizing the overall nursing department. I also make sure our facility is in accordance with guidelines provided by state.

The LPNs were responsible for managing medication, taking care of residents, coordinating care plans for the residents, and educating, charting and supervising CNAs. Their responsibility also depended on what LPNs they were. According to LPN 1, she was an LPN and the staffing coordinator. When asked what she did, she replied:

I do still work on the floor as an LPN on occasion when need, but I make sure the day to day staffing is taken care of to ensure you have enough staff-to-patient ratio.

LPN 2 and LPN 4 said they “worked the floor,” delivered medication (oral, intravenous), took vital sign measurements, charted information about the patient, and took care of residents. LPN 3 was an LPN charge nurse responsible for helping to coordinate plans of care for residents.

CNAs helped residents with their activities of daily living: bathing, brushing teeth, dressing, feeding, toileting, and many more activities. When asked about job duties, CNA1 replied:
Basically the bedside care, their personal cares like making them ready in the morning, making ready for bed, brushing hair, teeth, toileting, bathing if showers aids are not available. Just the basic everyday care they need assistance for.

And, CNA2 said:

Getting the resident ready for bed, toileting them, making sure that they are clean, making sure that… do oral care…pretty much daily need we do.

The healthcare providers were quite busy performing their duties. They seemed pretty busy until afternoon, when they had to help their residents with showers, get them ready for lunch and medications. I scheduled the interview for after 2:00 p.m., around the time of change in shift. The informants were polite and cooperative in sparing a few minutes for the interview, even when they were in a rush or it was time for them to leave.

**Knowledge of Healthcare Providers**

The first research question was to find out the knowledge level of healthcare providers on HIV/AIDS in older adults. To do so, a series of “knowledge questions” were asked about STIs and HIV/AIDS in older adults, much like a test over the material.

First, the healthcare providers were asked if they knew the prevalence of STIs in older adults was increasing. Answers given by the healthcare providers indicated that more than half were unaware of the increasing population of older adults with STIs. Some of the comments given and the observations made by the researcher during the interview suggested that some of the participants were surprised by the question, although some seemed aware and confident. All CNAs were unaware of the fact and three LPNs stated “No” when asked if they knew STIs were increasing among older adults. For example, CNA 3 stated:
It is the first time I am hearing this. In older adults… I did not know and never thought of that.

LPN2 also suggested surprise, saying:

No, I was not aware of that. As in elderly…no did not know that.

However, RN 1 and RN 2 both knew about the rise in STIs among the older population. They responded very confidently when asked about increasing number of HIV cases in the older adults population. As RN1 commented:

Yes, because the older adult population believes that they can no longer get pregnant so they don’t need to use sexual protection, hence STDs is growing more among that age group.

RN2 said, “Yes, I am aware of that fact.”

After that, each of the informants interviewed were asked about the factors that contribute to the transmission or infection of STIs -- especially HIV/AIDS -- in older adults. Furthermore, they were also asked to indicate what they believe are the causes of STIs and HIV/AIDS in older adults. Interviewees’ answers included mental status, unprotected/unsafe sex, exposure to contaminated needles, and blood transfusion as some of the risk factors. For example, CNA 1 said:

As they get older they tend to get more confused they are not thinking clearly as they would be as my age or middle age so taking precautions is not goanna necessarily be the first thing they think to do. Mental status plays a big role.

LPN2 was aware of these risk factors, but added the view that sexual relations might be the least likely way that the older adults she worked with would be exposed to HIV. As she said,
Well I would say more…In elderly this age, I wouldn’t think it would be so much sex. Well I am not saying it can’t be, but you know, the elderly here, they are more…they are not as sexually active as they were, or as well as a lot of elderly people now-a-days. I would think it would be either exposure to a contaminated needle, or exposure from somebody else who…for whatever reason has a disease.

Some participants seemed quite unaware of the risk factors of HIV/AIDS in the elderly population. When asked what they knew about risk factors, LPN 1 stated: “Ahhh…that’s a good one. I do not know.” CNA 5 expressed some confusion, “Well, it can…like, that’s usually -- it can be HIV/AIDS that’s usually what you die from. It is from complication they die.” CNA 6 simply said, “I don’t know what you are talking about.”

Informants generally considered low condom use to be a main risk factors for HIV/AIDS. All of the participants said that not using condoms was a reason for HIV/AIDS infection in older adults. Further, most participants thought that dementia and menopause are the reasons behind not using condoms. They seemed to think that a lot of older people would not use condoms; that many older adults do not see a point in doing so, especially if the women have reached menopause and is not concerned about getting pregnant. For example, according to RN 1:

Like I said to you earlier, because they feel that they are immune to getting pregnant because they have already reached menopause so they don’t feel the need of using protection.

RN 2 said the same thing, but added the idea that condom use would be low among older adults in her care because people with dementia do not think about condoms. They are not always grounded in reality and are often unclear with their thoughts. In her words:
For me, like I said, protection is the big thing, within different kinds of STIs…because, you know, that they think that once we can’t get pregnant. And another thing too is you do have a lot of dementia and stuff like that. And anytime somebody has dementia -- or sometimes urinary tract infection -- it can affect their decision making abilities and that increases the chance.

Interestingly, more than half of the participants did not think that the increasing availability and use of ED medications, like Viagra, was involved in the increasing incidence of HIV/AIDS among older adults. When asked if Viagra use could be considered a risk factor for HIV transmission in older adults, RN 1 simply said, “No.” LPN 1 reported that she never thought about it, and commented that it was the first time she had ever talked about the topic. LPN 3 said. “No. I mean, if it is going to be, it is going to be. It does not matter whether they use it or not” -- as if using Viagra had no effect on the likelihood of having sex.

On the other hand, LPN 2 seemed less clear about whether using Viagra would increase the likelihood that a person would engage in unprotected sex:

No, I wouldn’t think so. But, if you are not using it properly…I mean, I guess if you are taking a pill and going out and not using protection and having sex with whoever, then yes.

Her comment indicated that she might be able to agree that ED medications could increase the risk of HIV infection if their availability and use tended to promote risky sexual behavior in older adults. While the remaining participants did say that they thought the use of Viagra could facilitate HIV/AIDS infection, when asked how it related to HIV/AIDS transmission, no one gave a response.
In the same way, many participants thought that neither sexual orientation nor drug abuse could be considered risk factors of HIV/AIDS in older adults. Although recognizing both as being risk factors for HIV/AIDS, generally, the interviewees did not feel these applied to older adults simply because they had not witnessed any older adults abusing drugs or know any that had non-heterosexual relations. Some participants said that these factors might relate to increases in cases of HIV/AIDS among older adults as society ages, but emphasized that the physical effects would vary from person to person, and mental state of the person. Like RN2 said:

I have not seen that in a geriatric population…I am sure there is…you know there is better history of drug use and all that back….as far as you can remember, but I have not seen it.

**Views of healthcare providers on their own role in preventing HIV/AIDS in elderly**

The second research question addressed by the analysis was whether the healthcare providers see preventing HIV/AIDS in older adults as their role. In other words, according to them, is there anything that they could or should do in working with older adults that would promote healthy lifestyles that would reduce the prevalence of HIV/AIDS among the elderly? Analysis of the information obtained from interviews suggested that all participants thought that they do have some responsibility in preventing the transmission of HIV/AIDS in older adults. Specifically, the role healthcare providers saw for them depended on what position they were holding – whether it be RN, LPN or CNA. In other words, their perceived role is totally based on their defined job responsibility. When organizing the findings two key areas were seen: Educating and creating a safe environment.
Education. All participants consider that educating older adults is one of the best methods of preventing increases of HIV/AIDS among the elderly. They expressed the idea that older adults, as well as community members, should be educated about HIV/AIDS, including what it is, methods of transmission and ways to prevent it. In addition, it is important to make older adults aware that they can have HIV/AIDS, and to discuss what can be done to minimize risks. A key piece of information is that using a condom is important, even in the absence of pregnancy concerns. According to RN 1, “Things were very different back then when older adults were young.” So it is very important to provide them adequate education now that they are older, as they may not have adequate knowledge of HIV/AIDS.

However, interviewees felt that the practice of educating and enlightening older adults is not done. All three CNAs thought that educating older adults can help prevent HIV/AIDS among older adults, but they did not implement it in their daily activities. According to them, it did not fall in their job responsibility. Like CNA 1 said:

We got to do our best to educate them and provide a safe environment for them…that’s our job. Obviously don’t leave out needles and things like that.
Dispose properly, but I do not do history taking….and educating about HIV/AIDS, method of transmission, how to prevent…Typically this does not fall in my job responsibility.

Also, participants felt that an area that was not being addressed was communicating about sexuality and sexual relationships as a part of learning about the health status of LTC residents. In large part, the reason the healthcare providers do not take a sexual history during medical history taking, and they do not educate about HIV/AIDS, method of transmission, preventing it
and encouraging condom use, is because the institute is a LTC setting; it is assumed that when older adults get to that point these are not concerns. As LPN2 said:

I would think that would be more of our younger adults in their 30s, 40s, not our elderly 80s, 90s years of people we are taking care of now.

Additionally, at the facility involved in the study most of the residents have dementia and/or problems in their ADLs, further promoting the assumption that the residents are not going to be engaging in any of the behaviors that would increase their risk of HIV/AIDS.

**Creating a safe environment.** The participants spoke extensively about providing a safe environment as their role to prevent HIV/AIDS in older adults. Creating safe environment fell into the job descriptions of all of the interviewed healthcare providers (RNs, LPNs and CNAs). One of the CNAs talked about ensuring not leaving out needles and things like that; “Disposing of it properly.” Another mentioned maintaining standard precautions, cleaning the surfaces contaminated with body fluids with 10% bleaching solution, and making sure they are clean. Similarly, CNA1 stated:

Educating older adults is important and if they are engaging in those kinds of activities [sexual relations] then providing them protection.

When asked how they could provide protection, she mentioned providing condoms and making sure no infection is transmitted from the activities of healthcare providers.

The participants talked about creating a safe environment for older adults as well as for their family members and co-workers. Like LPN2 describes:

Personally I think that we have HIPPA laws and I agree with HIPPA laws that only people that need information should have the information, their health
information. The facilities I worked at with -- the gentleman that I had that was HIV positive -- that particular facility didn’t want the CNAs to know. They wanted the nurses to know, but they didn’t want the CNAs to know. To me, everybody who is going to have the potential to come in the contact with that person’s blood and bodily fluids has a right to know.

According to the participants, it is very important to create a safe environment for everyone, and everyone should know what they are dealing with and the things that they should or should not do.

**Conclusion**

Although the participants said that they have roles in preventing HIV/AIDS in older adults, they also indicated that preventing HIV/AIDS mainly depended on the individual. The participants thought that all they can do is educate and provide a safe environment. LPN 3 said:

We have a role to an extent. We can do all the education that we can, but there are times that we can’t crowd. And if a gentleman and a lady want to get together and have a sound mind, we cannot stop that. Well, sometimes there is no way to prevent it. They are human and they do have their own urges. While they are doing those types of activities, are of sound mind and know what they are doing, then they have right to. All we can do is excuse ourselves from the room. Other than that, education.

RN 2 also stated that as a nursing home they can provide education and protective devices (condoms), but in the end, it is the individual’s decision. The healthcare provider’s role is to educate the residents, but they cannot make the decisions for them.
According to the interviewees, the nursing home policy supports these participants’ views on this matter. The nursing home does not have a separate room for individuals who have a desire to have sex. And, if a healthcare provider finds some resident in a compromised situation, then the healthcare provider is expected to just walk away if the residents involved are completely alert, oriented and able to make their own decisions. If a resident has dementia, they are not able to speak for themselves, or are not in their right frame of mind at that time, then the healthcare provider is expected to intervene and distract the residents because they are not sure if there was consent in the situation. Also in this case, the resident’s family members are informed, just so that they know. If the resident is completely oriented and competent, and they do not have papers stating that they are incompetent, then their family does not have to be notified.

Generally, the healthcare providers had optimistic attitudes towards working with older adults who have HIV/AIDS. While half initially tended to think that HIV/AIDS was not really a problem among the elderly, they seemed receptive to new information they heard during the interview about the situation. All believed, in spite of the diagnosis, they would be able to care for the affected elderly, and that it is not weird or abnormal for older adults to have HIV/AIDS.

It is important to note that the participants received all their education about sexually transmitted disease from their school, and according to all of the interviewees the information obtained in their course work only focused on young adults. Thus, many were not aware of the fact that the number of older adults with HIV/AIDS is increasing and many had not learned about some of the risk factors of HIV/AIDS that are particularly relevant to older adults. But, the healthcare professionals interviewed considered that the knowledge they had was adequate for them to understand the special circumstances surrounding aging adults who have HIV/AIDS.
The results are consistent with previous studies (Hughes, 2011) finding that healthcare providers’ knowledge of HIV/AIDS specific to older adults is low. In the current study, the participants were not aware of the increasing population of older adults with HIV/AIDS. In fact, four participants seemed amused when the researcher stated that there is an increasing population of older adults with HIV/AIDS in the United States.

Similarly, on the question of how HIV can be contracted, the respondents’ answers vary in many areas. The variation in their responses portrays a lack of knowledge about the nature of HIV infection in older adults (Adepoju, 2006). Many of the respondents stated that, neither the use of erectile dysfunction medication, nor a person’s sexual orientation, nor their drug use are risk factors of HIV/AIDS in older adults. The respondents who stated that erectile dysfunction medication is a risk factor of HIV/AIDS in older adults could not explain how it can lead to increasing rates of HIV/AIDS. This may be because their course did not contain any information about HIV/AIDS in older adults. As suggested by other research, it seems that the information participants carry is influenced by level of education, past experience and how long ago they graduated (Suominen et. al, 2010). When discussing how her education prepared her dealing with sexuality and sexual health, LPN 2 said:

I know the basics, but I feel like there is more that I needed to know...We discussed HIV…Keeping in mind 14, 15 years ago basically…we discussed all the STDs...a lot of them, anyways. I don’t remember that we were specifically in older adults. Ahh…we just basically discussed some of the medications that used
to treat it, mortality rate at that time of what it was...ahh...How it is passed...You know that kind of thing...but I don’t remember anything specific in regard to elderly HIV population.

Suominen et. al (2010), found out that years of working experience were negatively related to the level of knowledge about HIV/AIDS: The older the healthcare provider, the less they know. This may be due to lack of relevant content when they were in school, and lack of further training and in-service education.

In contrast, Makhado, & Davhana-Maselesele (2016), found HIV knowledge scores across all nursing categories were higher than the means suggested by results from other studies. This could be because the nurses used other sources like internet, books and, pamphlets to advance their knowledge, and perhaps they had other sources of training and learning about HIV/AIDS.

The CNAs had only a few months of healthcare provider training and the information they had was related to standard protection. Like one of the CNAs said, “In our CNA class we go over a precaution aspect, but we did not go into other aspects.” The LPNs went to nursing schools for a year, so they had more knowledge than the CNAs. The RNs were the ones with the highest knowledge. This result is similar to the study conducted by Hughes (2011) which showed that the level of knowledge of physicians was significantly higher than nurses and social workers, while nurses scored significantly higher than social workers.

The result also may have been influenced by the working environment of the respondents. As the study was conducted in a LTC facility, the respondent related it to their specific residents. Like one of the participants stated, Viagra use and not using protection may
cause HIV, but that would be more of an issue among younger older adults in their 50s and 60s, and not like the residents in the LTC facility in their 80s and 90s. Because most of the residents that are in LTC facilities have trouble with their activities of daily living the healthcare provider participants would not think of residents’ current sexual relations as being a risk factor.

Going deeper into the thesis topic, the researcher aimed at finding if healthcare providers think they have a role in preventing HIV/AIDS in elderly, and also their views on their own role in this regard. Researchers have proposed that healthcare providers do have a role in preventing HIV/AIDS in older adults and there are some responsibilities they can take on (Jeffers & DiBartolo, 2011 and Hillman, 2008). Of the total nine healthcare provides (RNs, LPNs and CNAs) who were interviewed for the present study, all the respondents stated that they believe they have a role in preventing HIV/AIDS among older adults. The two main roles that were stated were educating others and creating a safe environment for residents.

Respondents’ comments suggested that the role of healthcare providers is directly related to the job responsibility of the title they are holding. For example, educating older adults mainly falls as a responsibility of the RNs and LPNs, whereas, creating a safe environment is the responsibilities of CNAs. However, actions to prevent HIV/AIDS were not performed by any of these healthcare providers. Although all participants mention that the best way to prevent HIV/AIDS among older adults is making older adults aware of HIV/AIDS, none reported providing information as a part of their jobs. When asked about educating LTC residents about condom use, or including sexual history in medical records, all reported, “No” – these things did not occur. If an older resident had a diagnosis of STIs, then a depth sexual history was taken.
However, on a regular basis sexual history was not included in the history taking information form. This result may be due to the long-term care setting. As one of the respondents said:

> We do educate and encourage condom use as long as they are able to understand, but when they get to this point it’s not most of the time a concern. When I was in the hospital, I included sexual activities and educated about STIs including HIV/AIDS. Here most of the time we have dementia patient and people are not able to do these things and need constant assistance.

Providing a safe environment was mostly thought of in terms of safe needle use. However, the rules of quietly leaving a discovered scene of sexual activity, once the worker is sure the people involved are aware and capable (not in danger), is like providing a safe environment for sex. It respects the residents’ privacy and autonomy (i.e., the right to be sexual beings). Seeing to this aspect of providing a safe environment may make it difficult to at the same time encourage residents to practice safe sex -- that would not be respective of privacy -- so that is another reason health promotion would have to rely primarily on education.

According to a health promotional model, physicians and nurses play an integral role in the development of the interpersonal environment that exerts influence on the lives of patients (Ng & Caires, 2016). HIV/AIDS can be prevented in sexually active older adults if they have awareness about the disease. Education is the most effective way to develop awareness and prevent HIV/AIDS. The present study suggested that healthcare providers may not be playing their integral part due to various factors like facility policy, type of facility and worker’s job responsibility. Educating patients and addressing their needs is a difficult job. So, the focus should be the transfer of knowledge and information related to a disease and its effective
management without forcing the residents to act accordingly. The information provided should incorporate patient-specific information that can have a positive impact on motivation, as well as attitudes toward change in behavior that decreases risk of HIV/AIDS (Ng & Caires, 2016).
CHAPTER 6
CONCLUSION

This research project titled “Perception of Healthcare Provider on HIV/AIDS in Older Adults,” explored what RNs, LPNs and CNAs working in an LTC facility had to say about HIV/AIDS in older adults. The main focus of this study was to find out the level of knowledge healthcare providers have about HIV/AIDS in older adults and the views of healthcare providers on their own role in prevention and dealing with HIV/AIDS in older adults. A total of nine healthcare providers (two RNs, four LPNs and three CNAs) were interviewed. Then, the obtained data were transcribed and read thoroughly.

The data were transformed into two themes: education about HIV/AIDS, and creating a safe environment. This helped the researcher understanding, what the healthcare providers think their role is in preventing HIV/AIDS in older adults. The healthcare providers think that they have a role to some extent, but that it is mainly the individual older person’s responsibility to make a change in behavior and apply the obtained information in daily life.

It was found that healthcare providers’ knowledge of HIV/AIDS specific to older adults was low. Many were uninformed about the increase in HIV/AIDS in older adults. They reported mental status, unprotected/unsafe sex, exposure to contaminated needles and blood transfusion as some of the risk factors of HIV/AIDS in older adults. The healthcare providers believe that the knowledge they have is adequate to understand the special circumstances surrounding aging adults who have HIV/AIDS; however, more knowledge will do no harm. The healthcare providers had positive attitudes towards working with older adults with HIV/AIDS and believed
that no one should be denied proper treatment and care due to the diagnosis of HIV/AIDS. All have an equal right to healthcare.

From this research it may be speculated that the knowledge of HIV/AIDS specific to older adults in healthcare providers working in a long-term care (LTC) facility is slight and varied. LTC facilities’ healthcare providers may not be sufficiently educated and trained to tackle the special circumstances surrounding aging adults who have HIV/AIDS. Taking into account what is known about increasing numbers of persons over age 65 who have HIV or AIDS, and using the information obtained in the study, there may be a need to include more information about HIV/AIDS specific to older adults in the nursing curriculum. Follow-up training or continuing education opportunities for LTC healthcare providers may be helpful to keep them better informed and providing appropriate care.

Limitations of the Study

This study’s main limitation is the very small group of interviewees from a midwestern rural LTC facility. For this study, a total of only nine people were interviewed. If the study had a larger sample and covered other types of geographical areas, there could be more data collection and there may be more variation in experiences to report, creating different themes or issues to the topic. As well, this study was undertaken only at one LTC facility where there are certain rules, and things done in a certain way and primarily had very old residents and residents with dementia. Including few more LTC facilities that are different in terms of resident to collect more data could give varying information to explore deeper into the topic. For example, including facilities with active older adults in their 50s and 60s as part of the study could be
helpful to enrich the data base. Finally, the sampling procedure and qualitative approach of the study limit the ability to generalize results to a population of healthcare workers.

**Recommendations for Future Research**

Through this study there are opportunities to further investigate topics. Attention could be given to how healthcare providers communicate with older adults about HIV/AIDS, particularly in terms of discovering ways to decrease barriers to talking with older adults about sex, HIV and its prevention. Also, studies that sample all healthcare providers, including physician, nurses and social workers in different long term setting could potentially shed more light on the issue. Similarly, there is potential for conducting a study of nursing programs to find out what they do to cover topics of sexuality, drug use, and STIs, including among older persons, which will help to make necessary changes in the curriculum as needed. Last, continuing education forums for LTC healthcare providers could be developed and assessed in terms of helping healthcare providers carry out their roles in health promotion.


Hughes, A. K. (2011). HIV knowledge and attitudes among providers in aging: Results from a national survey. AIDS Patient Care and STDs, 25(9), 539-545. doi:10.1089/apc.2011.0026


doi:http://dx.doi.org/10.1016/j.nurpra.2010.06.003


http://doi.org/10.3332/ecancer.2014.489

doi:10.1093/geront/45.5.617


Turpin, R. E. (2012). Physician barriers to sexual risk behavior education provided to sexually transmitted disease patients


APPENDIX A

LONG-TERM CARE FACILITY LETTER OF PERMISSION

Dear Executive Director, __________;

Thank you for considering my request to conduct my research study titled “Perception of Healthcare Provider on HIV/AIDS in older adults” at your site. Could you please reply to this email giving me the permission to conduct the research there? I will need a statement saying that it is OK to collect the data at your location, including the company name, your name and your position. Thank you for your help.

Sincerely,

Anisha Bharati
Dear Department Chair, _____________:

Thank you for considering my request to conduct my research study titled “Perception of Healthcare Provider on HIV/AIDS in older adults” at your site. Could you please reply to this email giving me the permission to conduct the research there? I will need a statement saying that it is OK to collect the data at your location, including the department name, your name and your position. Thank you for your help.

Sincerely,

Anisha Bharati
**APPENDIX C**

**RECRUITMENT FLYER**

**Healthcare Provider Needed for Research Study**

**Project Title:** Perception of Healthcare Provider on HIV/AIDS in older adults

**Description of Research:** I am conducting a four-week research study at the Country Club Care Center [Midwest State], during November and December, 2016. The study will examine the knowledge of healthcare providers on HIV/AIDS in older adults and find out the views of healthcare providers on their own role in prevention and dealing with HIV/AIDS in older adults. Each healthcare provider will participate in one 15-30 minute individual interview about HIV/AIDS in older adults. The interviews will be completed on site at the nursing home.

**Who Can Participate:** Any healthcare provider who is employed by the Nursing Home during November or December, 2016

**About the Researcher:** My name is Anisha Bharati and I am a Master’s degree candidate in the Master of Science in Social Gerontology program at the University of Central Missouri. I am currently in my last semester of my Master’s program.

**Researcher Contact Information:** If you are willing to participate in this voluntary study, or if you have any questions about this study, please contact me by email at anishabharati7@gmail.com or by phone: 660-262-8690

**Confidentiality:** Participants’ identities will remain confidential.
Students Needed for Research Study

Project Title: Perception of Healthcare Provider on HIV/AIDS in older adults

Description of Research: I am conducting a four-week research study at the Country Club Care Center [Midwest State], during November and December, 2016. The study will examine the knowledge of healthcare providers on HIV/AIDS in older adults and find out the views of healthcare providers on their own role in prevention and dealing with HIV/AIDS in older adults. Each student will participate in one 15-30 minute individual interview about HIV/AIDS in older adults. The interviews will be completed on site at the University.

Who Can Participate: Student of Sociology, gerontology and cross disciplinary, who are working with older adults in long-term care during November or December, 2016

About the Researcher: My name is Anisha Bharati and I am a Master’s degree candidate in the Master of Science in Social Gerontology program at the University of Central Missouri. I am currently in my last semester of my Master’s program.

Researcher Contact Information: If you are willing to participate in this voluntary study, or if you have any questions about this study, please contact me by email at anishabharati7@gmail.com or by phone: 660-262-8690

Confidentiality: Participants’ identities will remain confidential.
APPENDIX D

CONSENT FORM

Identification of Researchers: This research is being done by Anisha Bharati, with oversight by Gretchen J. Hill, PhD. We are with the University of Central Missouri.

Purpose of the Study: The purpose of this study is to find out knowledge of healthcare providers on HIV/AIDS in older adults, to find out the views of healthcare providers on their own role in prevention and dealing with HIV/AIDS in older adults.

Request for Participation: We are inviting you to participate in a study on. It is up to you whether you would like to participate. If you decide not to participate, you will not be penalized in any way. You can also decide to stop participating in the study at any time without penalty. If you do not wish to answer any of the study questions, you may simply skip them. You may withdraw your data any time before the end of the interview. If you wish to do this, please tell Anisha Bharati in person about your decision to withdraw from the study.

Exclusions: You must be at least 18 years of age to participate in this study. You must be CNAs, LPNs and RNs who work in a selected Johnson County long-term care facility with older adults, or students of Sociology, Gerontology and Cross Disciplinary Studies at UCM who is currently working with older adults in long-term care.

Description of Research Method: This study involves participating in a one-time interview with Anisha Bharati. The interview questions will ask about your knowledge and your perception on increasing number of older adults with HIV. This interview will take about 15-30 minutes to complete. After you finish, we will explain the purpose of the study in more detail. You will also have a chance to ask questions.

Privacy: All of the information we collect will be confidential. We will not record your name, employee number, or any information that could be used to identify you.

Explanation of Risks: The risks associated with participating in this study are similar to the risks of everyday life. There is no compensation for participating in this study.

Explanation of Benefits: You will benefit from participating in this study by getting firsthand experience in gerontological research. You may also enjoy talking about your views about older adults.

Questions: If you have any questions about this study, please contact Dr. Gretchen Hill at University of Central Missouri, (660) 543-8625 or ghill@ucmo.edu. If you have any questions about your rights as a research participant, please contact the Human Subjects Protection Program at (660) 543-4624. If you would like to participate, please sign a copy of this letter and return it to me. The other copy is for you to keep. I have read this letter and agree to participate.

Signature: Date:
Printed name:
Person obtaining consent: Anisha Bharati
APPENDIX E

SEMI-STRUCTURED INTERVIEW GUIDE

INTERVIEW SCHEDULE

Introduce Researcher and Explain Research Study Procedures

Background Questions

What is your educational background?

What is your current job title?

What are your current job duties?

How long have you been working? (Year of experience)

Tell me about yourself and your personal and professional background?

Interview guide question

(Main questions are in bold type and prompts in regular type)

1. Are you aware of the fact, STIs in older adults is increasing? Have you ever had chance to work with STIs positive older adults? Can you tell me what the diagnosis was? Have you ever had chance to work with older adults with HIV/AIDS? Can you tell me the first think that strikes you, when you find out older adult have STIs or HIV/AIDS?

2. What do you think is the risk factors of STIs especially HIV/AIDS in older adults? Do you think that sexual enhancing drugs- Viagra, Cialis, Levitra—have any effect on the HIV/AIDS rate? How so? Do you think older adults’ sexual orientation and drug abuse have any effect in increasing number of HIV/AIDS in older adults? What do you think about physiological changes, low condom use? How can we prevent these risk factors?

3. What are the facility policies for the residents who are sexually active (want to have sex in the facility)? Do you have a separate room? If not what will you do if you observe sexual activities in residents’ room?

4. In your opinion do healthcare providers’ have role is prevention HIV/AIDS in older adults? YES. What do you think is your role in prevention HIV in older adults? Do you include sexual activity during history taking? Do you educate about STIs especially HIV/AIDS,
method of transmission, how to prevent STIs? Do you encourage condom use for the residents who are sexually active?

5. If you feel educated/trained enough in the area of HIV/AIDS to understand the special circumstances surrounding aging adults who has HIV/AIDS? How much training did you receive in medical school or training program that focused on the special needs of the aging HIV/AIDS population? Where did you get the training (school, institution)? Do you think the facility is equipped to handle issues related to these comorbidities? (Holistic care that address physical, mental, social and spiritual need)

Closing Questions

Is there anything else that I should know?
Dear Anisha Bharati:

Your research project, ‘Perception of Health Care Provider on HIV/AIDS in older adults’, was approved by the University of Central Missouri Human Subjects Review Committee on 10/25/2016. You may collect data for this project until 10/25/2017.

If an adverse event (such as harm to a research participant) occurs during your project, you must IMMEDIATELY stop the research unless stopping the research would cause more harm to the participant. If an adverse event occurs during your project, notify the committee IMMEDIATELY at researchreview@ucmo.edu.

The following will help to guide you. Please refer to this letter often during your project.

- If you wish to make changes to your study, submit an “Amendment” through Blackboard under the “Amendment and Renewals” tab. **You may not implement changes to your study without prior approval of the UCM Human Subjects Review Committee.**
- If the nature or status of the risks of participating in this research project change, submit an “Amendment” through Blackboard under the “Amendment and Renewals” tab. **You may not implement changes to your study without prior approval of the UCM Human Subjects Review Committee.**
- If you are nearing the expiration date for collecting data for this project (10/25/2017) and you have not finished collecting data:
  1. submit your project application via Blackboard under the “Amendment and Renewals” tab (include any revisions and/or amendments approved since you submitted your application initially) AND
  2. submit a “Renewal Report” through Blackboard under the “Final/Renewal Report” tab.
- **When you have completed your collection of data, please submit the “Final Report” found on Blackboard under the “Final/Renewal Report” tab.**

If you have any questions, please feel free to contact me at researchreview@ucmo.edu.

Sincerely,

Kathy Schnakenberg
Program Administrator/Research Compliance Officer
Office of Sponsored Programs and Research Integrity
University of Central Missouri