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Master's Thesis

RAISING AWARENESS IN SEXUALLY TRANSMITTED DISEASES IN THE ELDERLY POPULATION

Master of Science in Nursing

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ABSTRACT

Sexual activity is an important part of later life, frequently associated with better cardiovascular health, greater self-esteem, and higher life enjoyment levels. The population of people aged 50 and older in the United States is expected to grow substantially due to factors such as increased lifespan, decreased fertility, and the aging of baby boomers An increase in sexual activity among middle aged adults and the elderly resulted in a dramatically increased prevalence of sexually transmitted diseases (STDs) such as HIV/AIDS, syphilis, gonorrhea, trichomoniasis, and chlamydia.

Concerning STDs in patients over age 50, the literature focuses mainly on HIV/AIDS, with very little published on other STDs. Also, we took date from Center for Disease Control and Prevention and national AARP survey(2010).We find out that, lack of awareness may span from prevention and treatment programs primarily targeting young adults. Consequently, this may cause the older population to believe they are not affected. Social marketing campaigns targeting older adults are necessary to encourage safer sex and raise awareness with messages that are age-appropriate and culturally sensitive. The CDC recommends routine HIV screening for persons up to age 64. Persons over 64 should be counseled to receive HIV testing if they have risk factors. Also, intervention strategies to help older women negotiate safer sex are especially important. There is a great need for all health care providers to be educated about addressing sexual health and risk for STDs among older adults. A collaborative effort involving families, health care providers, policy-makers, and community leaders at all levels is required. Nurses can advocate for the development and implementation of educational initiatives to increase the awareness of STDs among older adults. This education should be initiated in nursing school and continue as part of required continuing education throughout the span of the nurse's practice. Important issues to address related to sexuality in older adults include safe sex practices, physical and emotional comfort level of sexual activity, and how a patient's medical conditions and/or medications are affecting his or her sexual desire and/or performance.

Raising Awareness in Sexually Transmitted Diseases in the Elderly Population

Introduction

Sexual activity is an important part of later life, frequently associated with better cardiovascular health, greater self-esteem, and higher life enjoyment levels. The population of people aged 50 and older in the United States is expected to grow substantially due to factors such as increased lifespan, decreased fertility, and the aging of baby boomers (CDC, 2003). As a result, there is a significant need for healthcare services that address chronic diseases as well as preventative services for this demographic. One area that needs particular attention is sexual health. An increase in sexual activity among middle aged adults and the elderly resulted in a dramatically increased prevalence of sexually transmitted diseases (STDs) such as HIV/AIDS, syphilis, gonorrhea, trichomoniasis, and chlamydia.

Sexuality in Elderly

According to the 2010 national AARP survey, that was testing adults of age 45 and older attitudes regarding sexuality, people in this age group are having sex and sexuality remains an essential element of their lives (AARP, 2010). Moreover, the survey shows that "just under 3 in 10 of those surveyed (28%) report they had sexual intercourse once a week or more often and 40 percent report having intercourse at least once a month" (AARP, 2010). These results show that elderly continue to be sexually active and sexuality is an important element of their lives. In addition, the results of the AARP survey show elderly have more open attitudes toward sex and sex is critical to a good relationship. The elderly population remains sexually active and many factors contribute to that trend including the increasing availability of drugs for erectile dysfunction and treatments for vaginal dryness. Moreover, older adults are often searching for companionship due to the divorce and/or loss of the spouse (Maes, Louis, 2003), and many of these new relationships become sexual in nature (Savasta, 2004).

Sexually Transmitted Diseases

Sexually transmitted diseases (STDs) are infectious diseases acquired through sexual activity with an infected person. Other STDs, such as hepatitis B and HIV viruses may also be transmitted by means of blood (Talashek, 1990). Many STDs have no physical signs and symptoms, leaving the patient unaware of the infection without proper diagnostic testing. It is important to note that older adults who are sexually active are at risk for acquiring a new STD, while others may be carrying an untreated infection from the past.

Physical changes in older adults contribute to the higher risk of acquiring sexually transmitted infection. Postmenopausal women' vaginal tissues thin and natural lubrication decreases, increasing the risk of micro tears and abrasion during intercourse allowing microorganisms a greater number of sites for entry (Boudes, 1989). Moreover, the immune system naturally declines with age, which can also increase the risk of sexually transmitted diseases (Scura, 1990). Older people are also less likely to use condoms, as they are past reproductive years and may not be concerned about unwanted pregnancy and are often unaware of STDs risk.

Contents

TABLE 1. MAJOR STDS

Disease	Signs & Symptoms	Treatment	Teaching & Prevention
Chlamydia	Men: None or urethritis Women: 2/3 = none 1/3 = mucopurulent discharge; PID	Antibiotics = cure (azithromycin; tetracycline; erythromycin)	STD prevention—partner must also be treated; full course of antibiotic treatment needed
Genital warts (human papillomavirus)	Warts on the genitals, anal region, vagina, cervix, or oropharynxl	Cryotherapy & laser = cure; may persist in deep layers of basal epithelium	STD prevention; HPV a major cause of cervical cancer
Gonorrhea	Men: urethritis with discharge Women: none or slight discharge and dysuria-PID	Antibiotics = cure (ceftriaxone; cefixime) ciprofloxacin;	STD prevention
Herpes simplex virus, type II	Vesicular lesions on the genitals, vagina, cervix, anal region, oropharynx;	No cure; treatment with acyclovir may suppress outbreaks and speed healing; frequent recurrence possible	STD prevention; abstain from close contact when known outbreak
HIV	None until progresses to AIDS, then widespread illnesses from immune dysfunction	No cure; treatment with zidovudine (AZT), didanosine, zalcitabine delays onset of AIDS	STD prevention; not transmitted by casual contact
Syphilis Primary (3-8 wks) Secondary (6-12 wks after to 1-2 yrs) Latent (2-4 years after infection) Late (3-20 yrs after infection)	Chancre at entry site Widespread cutaneous eruptions and systemic symptoms, flu-like, rash None Cardiovascular and nervous system damage; may be fatal	Antibiotics = cure (penicillin) Antibiotics = cure (penicillin) Antibiotics = cure (penicillin) Irreversible damage	STD prevention; highly infectious STD prevention; highly infectious STD prevention; noninfectious after 4 yrs Noninfectious except through spinal fluid

Reference: Letvak, S., &Schoder, D. (1996). Sexually transmitted diseases in the elderly: What you need to know: The young aren't the only ones at risk for STDs. *Geriatric Nursing*, *17*(4), 156-160.

Literature Review

Concerning STDs in patients over age 50, the literature focuses mainly on HIV/AIDS, with very little published on other STDs. Surprisingly, according to the National Institute of Aging, almost one-fourth of people with HIV/AIDS in the United

States are age 50 and older (National Institute on Aging, 2009). These numbers however may be underestimated due to the lack of routine HIV screening in this population (Luther, 2007). AIDS is a highly stigmatized health condition that poses challenges for affected older adults. Older adults are often more marginalized because of their age and may experience more depression and social isolation. Moreover, diagnosis and treatment of HIV/AIDS is very challenging due to the lack of screening, as well as other chronic conditions affecting older adults that may complicate the course of treatment. In addition, the immunological system is usually weaker in older adults, another factor that may alter the course of treatment (Mildvan, 2006).

Early diagnosis and treatment are crucial in curing and preventing complications from HIV/AIDS and other sexually transmitted diseases. However, societal attitudes including those of health care providers have hindered primary prevention and educational efforts for prevention of STDs among older adults. The most common myth shared by health care providers is the assumption that that older adults are not sexually active and are at low risk for STDs and, even if they are sexually active, it is usually within a long term monogamous relationship (Salzman, 2006). Clinicians may also share the belief that by asking older patients about their sexual activity, they may embarrass them (Salzman, 2006). Other factors include clinicians' time constraints on taking detailed, comprehensive health history as well as giving low priority to sexual concerns of an elderly, especially if they have other medical conditions (Coon, 2003).

It is a well-known fact that STDs mainly affect young adults and the adolescent population (CDC, 2007). Because STD prevention and treatment programs are aimed mainly at young adults and adolescents, older adults may share in the misconception that they are not at risk for STDs (Savasta, 2004). In addition, more seniors are living in groups at retirement communities where more socializing occurs, leading to increased incidence of sexual relationships. Furthermore, sex is barely stigmatized in the present society and this can promote an increase in sex among the elderly as well.

Statistics

According to the CDC, close to 2,550 cases of syphilis were reported among adults between the ages of 45 and 65 in 2010 which is up from around 900 cases in 2000. The number of reported chlamydia cases in the age group almost tripled, from around 6,700 in 2000 to 19,600 a decade later (CDC, 2010).

According to the CDC Reported Cases and Rates of Chlamydia per 100,000 Population in 2007-2011, it was found that there was a gradual increase in reported cases of chlamydia in ages 55-64 (from 2831 total cases in 2007 to 4210 total cases in 2011) as well as in ages 65+ (from 809 total cases in 2007 to 1064 in 2011). See table 1 below.

Chlamydia Table 1

CDC Reported Cases and Rates per 100,000 Population by Age, United States, 2007-2011.

	55-64 Total Cases	65+ Total Cases	55-64 Total Rates per 100,000	65+ Total Rates per 100,000
2007	2831	809	8.7	2.1
2008	3064	887	9.1	2.3
2009	3365	946	9.7	2.4
2010	3523	954	9.7	2.4
2011	4210	1064	11.5	2.6

Reference: Centers for Disease Control and Prevention.(2012).Reported Cases and Rates per 100,000 Population by Age, United States, 2007-2011.retrieved July 28, 2013 from http://www.cdc.gov/std/stats11/tables/10.htm

The CDC Reported Cases and Rates of Gonorrhea per 100,000 Population in 2007-2011 on the other hand show a slight decrease followed by increase in reported cases. It was found that there were 3168 total reported cases of gonorrhea in 2007 for ages 55-64 followed by a decrease in 2010 having only 2194 reported cases and followed by another increase in 2011 having a total of 2747 reported cases. Similar trend was noted in the age group 65 and older, with 707 cases in 2007, followed by gradual decrease to 520 cases in 2010 and another increase in 2011 having a total of 587 reported cases. See table 2 below.

Gonorrhea Table 2

CDC Reported Cases and Rates per 100,000 Population by Age, United States, 2007-2011.

	55-64 Total Cases	65+ Total Cases	55-64 Total Rates per 100,000	65+ Total Rates per 100,000
2007	3168	707	9.7	1.9
2008	2622	655	7.8	1.7
200	2212	554	6.4	1.4

9				
2010	2194	520	6.0	1.3
2011	2747	587	7.5	1.5

Reference: Centers for Disease Control and Prevention. (2012) Reported Cases and Rates per 100,000 Population by Age, United States, 2007-2011. Retrieved July 28, 2013 from http://www.cdc.gov/std/stats11/tables/21.htm

In terms of syphilis, when looking at CDC Reported Cases and Rates from 2007 to 2011 the gradual increase of total reported cases can be observed. For ages 55-64 in 2007 there were 409 total cases which increased up to 554 in 2011. The population 65 and older also shows an increase of total reported cases from 91 in 2007 up to 138 in 2011. See table 3 below.

Syphilis Table 3

CDC Reported Cases and Rates per 100,000 Population by Age, United States, 2007-2011.

	55-64 Total Cases	65+ Total Cases	55-64 Total Rates per 100,000	65+ Total Rates per 100,000
2007	409	91	1.3	0.2
2008	458	105	1.4	0.3
2009	517	90	1.5	0.2
201	493	107	1.4	0.3

0				
2011	554	138	1.5	0.3

Reference: Centers for Disease Control and Prevention. (2012). Reported Cases and Rates per 100,000 Population by Age, United States, 2007-2011. Retrieved July 28, 2013 from http://www.cdc.gov/std/stats11/tables/34.htm

According to the CDC in 2011, the estimated number of diagnoses of HIV infection in the United States, by age at diagnosis, was as follows: ages 50-54 (3,951 diagnoses); 55-59 (2,312 diagnoses); 60-64 (1,229 diagnoses); 65 or older (948 diagnoses). The estimated number of AIDS diagnoses in the 50 states and the District of Columbia, by distribution of ages at time of diagnosis, was as follows: ages 50-54 (3,567 diagnoses); ages 55-59 (2,198 diagnoses); ages 60-64 (1,107); ages 65 or older (899 diagnoses). This shows that although the rates of HIV and AIDS are decreasing with age the diseases are still prevalent among the elderly population.

Young versus Old

Surveillance data continues to show that the number of reported incidents of chlamydia and gonorrhea is highest in Americans between the ages of 15 and 24(CDC, 2011). The younger population is the demographic most commonly associated with STDs and as a result, most education efforts have been geared toward this age group. However, the number of older people acquiring STDs is growing each year. And because it seems it is not common practice to test the elderly for STDs, the real numbers are unknown due to widespread underreporting. According to the CDC, about 19 percent of all people with HIV/AIDS in the US are 50 and older (CDC, 2011).

Many factors contribute to the increasing rate of STDs within the elderly population including the availability of hormone replacement and erectile dysfunction medications as well as a more relaxed attitude toward sex within the age group. However, the contribution of these factors to the rising STD rate is not clear, as very few researchers have studied the sex lives of older adults. This group often is neglected in

terms of risk assessment, screening, and education regarding STDs (Kearney, Moore, Donegan, Lambert, 2010). Early detection and diagnosis of an STD is especially crucial for this population as a delay in treatment may lead to complications and increase the likelihood of morbidity. Although older Americans account for a relatively small proportion of new STD diagnosis overall, providing them education and services to help protect them from infection is critical. Therefore, raising awareness of health care providers regarding STDs among elderly is vital for appropriate prevention and treatment.

Diagnosing STDs in the elderly

Symptoms of an STD can be mistaken for another disease process that is more common in the elderly population. Often, the symptoms are vague and mimic other problems associated with aging, such as fatigue, weakness, memory changes, malignancy, weight loss, pneumonia, and dementia (CDC, 2008; National Institute of Aging, 2009).

Case Study

A 70-year-old white man visited his primary care provider (PCP) for symptoms of weight loss and fatigue. He reported a weight loss of 20 lb and increased fatigue over the past 6 months. After undergoing neurologic testing, psychiatric testing, and routine laboratory testing to rule out cancer and thyroid disease, he received a diagnosis of Alzheimer's disease. When the patient needed a postoperative blood transfusion several years later, his activated Power of Attorney consented to an HIV test, and the patient was found to have AIDS-related dementia, rather than Alzheimer's disease. The PCP, however, had never taken the patient's sexual history, assuming he was not at risk for an STD because of his age (Purpora, 2012).

As you can see from the case study, Alzheimer's Disease is often over-diagnosed and due to the physician's incomplete screening, the actual diagnosis should have been AIDS-related Dementia or Neurosyphilis Dementia, which would prompt an entirely different treatment protocol. Healthcare providers must stay alert to the fact that an older

adult is more likely to have full-blown AIDS than a younger adult at the time of diagnosis. All clients of any age must be made aware to report the presence of any rash, blister, sore, or discharge (Letvak&Schoder, 1996). Sadly, screening recommendations are most commonly targeted at younger persons. However, HIV screening recommendations include routine voluntary blood tests in all patients aged 13 to 64 years to prevent the 50% to 70% of new infections spread by persons unaware they are infected (CDC, 2011).

Elder Abuse

Healthcare professionals must also be aware that sexual abuse of older adults puts them at increased risk for STDs. Elder abuse is another under-reported problem. According to the National Center of Elder Abuse, warning signs of sexual abuse in elders can include bruises around the breasts or genital area and unexplained STDs (National Center of Elder Abuse, 2010).

A National Institute of Justice (NIJ)-sponsored study that examined elder sexual abuse found that:

- Elderly sexual assault victims were not routinely evaluated to assess the psychological effects of an assault.
- The older the victim, the less likelihood that the offender would be convicted of sexual abuse.
- Perpetrators were more likely to be charged with a crime if victims exhibited signs of physical trauma.
- Victims in assisted living situations faced a lower likelihood than those living independently that charges would be brought and the assailant found guilty (Burgess &Hanrahan, 2001).

To find out just how widespread elder abuse may be, NIJ sponsored a study in 2009 that involved an extensive telephone survey of older Americans (Bulman, 2009). More than 5,000 people, 60 or older, participated. Of those surveyed, 0.6 percent reported being sexually abused in the previous year. About 16 percent of these people said they had

reported the assault to the police. Family members were responsible for about half of the assaults (Bulman, 2009).

Erectile Dysfunction Drugs

A new analysis of insurance records of more than 1.4 million U.S. men over 40 found that those who used erectile dysfunction (ED) drugs were more likely to have sexually transmitted diseases than were non-users (Jena, Goldman &Kamdar, 2010). The research indicated that both in the year before and after drug initiation, men with a prescription to ED drugs had higher rates of STDs than those with no prescription. The scientists reported that HIV and Chlamydia were the most commonly acquired STDs. ED drugs have increased since 1998; nearly 40% of men ages 57-85 years have some degree of ED (Lindau, Schumm&Laumann, 2007). Therefore, when prescriptions for ED drugs are given out, healthcare providers must discuss the risk of STDs and ways to prevent them.

Unprotected Sex

Researchers indicate people over age 50 are one-sixth as likely to use condoms during sex and one-fifth as likely to have been tested for HIV compared with persons in their 20's (Jena, Goldman &Kamdar, 2010). Ideally, partners should get screened for STDs prior to initiating sexual contact. A study by sex researchers at Indiana University found that in the United States, condom use was lowest among men 50 and older (Jameson, 2011). Men in their 50s reported using a condom only 28 percent of the time with a casual partner. By comparison, men in the 18-39 age range used a condom with casual partners at least 50 percent of the time. Older adults do not worry about risk of pregnancy and this may be a reason for such a low number in condom use.

The fear of stigma related to a diagnosis can also present a challenge. Routine testing can help remove the stigma of being tested and can open a discussion about risky behavior. Stigma can not only affect quality of life, it may also present a barrier for the willingness to seek information about risk, transmission, and necessary medical attention (Emlet, 2006). Diagnoses may also be kept in secret from family and partners due to

stigma. Support is vital in reducing transmission and preventing complications. In some cases, support may only be found with the healthcare provider and so, a well established rapport is vital in maintaining communication and honesty.

Drug use

Just like drug use is more commonly associated with the younger population, the assumption that the elderly do not engage in drug use must also be dispelled. HIV transmission through injection drug use accounts for more than 16% of AIDS cases among persons aged 50 and older (CDC, 2007). Drug use can lead to more risky sex behaviors and having multiple sex partners.

Elderly should be taught that if they do inject drugs, they should:

- Use only clean needles, syringes, and other works.
- Never share needles, syringes, or other work.
- Be careful not to expose yourself to another person's blood.
- Get tested for HIV at least once a year.
- Consider getting counseling and treatment for your drug use.
- Get vaccinated against hepatitis A and B viruses (CDC, 2008)

As a result of the national trend among seniors, Medicare is providing coverage for STD screening in elderly and paying for behavioral counseling for sexually active seniors. The Centers for Medicare & Medicaid Services (CMS) has determined the following: The evidence is adequate to conclude that screening for chlamydia, gonorrhea, syphilis and hepatitis B, as well as high intensity behavioral counseling (HIBC) to prevent STDs, consistent with the grade A and B recommendations by the U.S. Preventive Services Task Force (USPSTF), is reasonable and necessary for the prevention or early detection of an illness or disability and is appropriate for individuals entitled to benefits under Part A or enrolled under Part B (CMS, 2012). CMS will also cover up to two individual 20 to 30 minute face to face counseling sessions annually for Medicare beneficiaries for HIBC to prevent STDs for all sexually active adolescents and for adults at increased risk for STDs, if referred for this service by a primary care

provider and provided by a Medicare eligible primary care provider in a primary care setting (CMS, 2012).

Sexual History

Healthcare providers must not forget that sexuality is part of a complete medical history; however, sexual histories in older patients are often not taken or are incomplete, partly because the provider feels anxious or uncomfortable discussing sexual issues compared with discussing less sensitive issues, such as gastrointestinal or cardiovascular problems (Andrews, 2009). Trust and respect are very important when exploring this topic in the elderly. Some people may view sexuality with positive regard and as a continuing opportunity for growth and experience while other people may view sexuality with embarrassment or as a taboo, ultimately feeling that this topic is not appropriate for discussion. In addition, sexual activity can be viewed as a means for the elder to affirm physical functioning, increase confidence, and to prevent anxiety. However, not all older adults have positive attitudes about sexuality. Elders may experience sexual dysfunction due to boredom, fear, fatigue, grief, or other factors (e.g., intrinsically low sexual desire, physical disability) (Gurvinder, Subramanyam& Pinto, 2011). This can make older adults reluctant to initiate a discussion about sex with their health care providers. When healthcare providers do not introduce the topic, these patients are unrecognized and don't get treated.

It may not be appropriate to conduct a sexual history at any given moment. Generally, the nurse conducts a sexual history on the following categories of patients: those receiving care of pregnancy, infertility, contraception or STD; those whose illness category will affect sexual functioning such as diabetes, heart disease, or gynecological problems and those experiencing a sexual problem (Kozier&Erb, 2008). Nurses can address sexuality when illness or surgery alters sexual function as well.

It is critical, however, to introduce the topic to all clients in order to give them permission to address any concerns. To facilitate communication a nurse may say "As a

nurse, I'm concerned about all aspects of your health. People often have questions about sexual matters, both when they are well and when they are ill. When I take your history, sexual concerns are included to help plan a comprehensive treatment approach". (Kozier&Erb, 2008). Even if permission may not be granted to warrant further history taking, the client can safely know that this is a safe environment to explore the matter at a later time.

Before conducting a sexual history, the nurses must identify their own feelings about sexuality and their own personal beliefs. Obtaining awareness can be accomplished by gaining more awareness in outsourced educational resources and sessions. The nurse should set aside personal beliefs regarding sexual practices in order to provide a culturally competent, non-judgmental, non-threatening, and reassuring approach. Reminding the client that all health information is handled in a confidential manner can also ease concerns the client may have.

A complete sexual history should include information about sexual partners, physical signs or symptoms, problems, and overall satisfaction (Letvak&Schoder, 1996). Sexually active patients should also be asked if protection against STDs is being used. The use of open-ended questions will facilitate client's comfort during the interview and is also more likely to provide the most information about sexual habits and practices. The use of pamphlets and or video material may allow the patient to review the information in private.

Sample of a Sexual History Questionnaire

- Are you currently sexually active? With men, women or both?
- With one or more than one partner?
- Describe the positive and negative aspects of your sexual functioning.
- Do you have difficulty with sexual desire? Arousal? Orgasm? Satisfaction?
- If there are problems, how have they influenced how you feel about yourself? How have they affected your partner? How have they affected the relationship?
- Do you expect your sexual functioning to be altered because of your illness?

- What are your partner's concerns about your future sexual functioning?
- Do you have any other sexual questions or concerns that I have not addressed? (Letvak&Schoder, 1996).

For persons over 50 years of age, many of the risk factors for HIV infection are the same as those for younger persons (CDC, 2007).

The *PLISSIT* model has also been used to assess and manage the sexuality of adults (Annon, 1976). The model includes several suggestions for initiating and maintaining the discussion of sexuality with older adults and may be a useful framework from which to not only address sexual dysfunction concerns but also open the door for further discussion relating to sexual activity and high risk.

PLISSIT Model

P	Obtaining **P**ermission from the client to initiate sexual discussion
LI	Providing the **L**imited **I**nformation needed to function sexually
SS	Giving **S**pecific **S**uggestions for the individual to proceed with sexual relations
IT	Providing **I**ntensive **T**herapy surrounding the issues of sexuality for that client

Condom Use

Condoms remain to be the most effective protective barrier against STDs. A spermicidal agent can further help further reduce the risk of transmission. The elderly patient should be provided verbal and written instructions on condom use. Elders may have impaired vision and may incorrectly read small print on pamphlets. Low literacy can also affect how the client comprehends the information provided. Easy-to-comprehend materials discussing screenings/testing should be readily available at senior centers as well as various healthcare settings. Nurses should provide appropriate referrals to specialists as needed.

How to Use a Condom Consistently and Correctly:

- Use a new condom for every act of vaginal, anal and oral sex throughout the *entire* sex act (from start to finish). Before any genital contact, put the condom on the tip of the erect penis with the rolled side out.
- If the condom does not have a reservoir tip, pinch the tip enough to leave a half-inch space for semen to collect. Holding the tip, unroll the condom all the way to the base of the erect penis.
- After ejaculation and before the penis gets soft, grip the rim of the condom and carefully withdraw. Then gently pull the condom off the penis, making sure that semen doesn't spill out.
- Wrap the condom in a tissue and throw it in the trash where others won't handle it.
- If you feel the condom break at any point during sexual activity, stop immediately, withdraw, remove the broken condom, and put on a new condom.
- Ensure that adequate lubrication is used during vaginal and anal sex, which might require water-based lubricants. Oil-based lubricants (e.g., petroleum jelly, shortening, mineral oil, massage oils, body lotions, and cooking oil) should not be used because they can weaken latex, causing breakage (CDC, 2006)

Proper use of condoms to reduce the transmission of STD based on current information**:**

1. Latex condoms should be used because they offer greater protection against viral STD than natural membrane condoms.
2. Condoms should be stored in a cool, dry place out of direct sunlight.
3. Condoms in damaged packages or those that show obvious signs of age (e.g., those that are brittle, sticky, or discolored) should not be used. They cannot be relied upon to prevent infection.
4. Condoms should be handled with care to prevent puncture.
5. The condom should be put on before any genital contact to prevent exposure to fluids that may contain infectious agents. Hold the tip of the condom and unroll it onto the erect penis, leaving space at the tip to collect semen, yet ensuring that no air is trapped in the tip of the condom.

6. Adequate lubrication should be used. If exogenous lubrication is needed, only water-based lubricants should be used. Petroleum- or oil-based lubricants (such as petroleum jelly, cooking oils, shortening, and lotions) should not be used since they weaken the latex.
7. Use of condoms containing spermicides may provide some additional protection against STD. However, vaginal use of spermicides along with condoms is likely to provide greater protection.
8. If a condom breaks, it should be replaced immediately. If ejaculation occurs after condom breakage, the immediate use of spermicide has been suggested (19). However, the protective value of postejaculation application of spermicide in reducing the risk of STD transmission is unknown.
9. After ejaculation, care should be taken so that the condom does not slip off the penis before withdrawal; the base of the condom should be held while withdrawing. The penis should be withdrawn while still erect.
10. Condoms should never be reused. Condoms should be made more widely available through health-care (CDC, 2006).

Nursing Implications

There is a great need for all health care providers to be educated about addressing sexual health and risk for STDs among older adults. A collaborative effort involving families, health care providers, policy-makers, and community leaders at all levels is required (CDC, 2006). Nurses can advocate for the development and implementation of educational initiatives to increase the awareness of STDs among older adults. This education should be initiated in nursing school and continue as part of required continuing education throughout the span of the nurse's practice. Important issues to address related to sexuality in older adults include safe sex practices, physical and emotional comfort level of sexual activity, and how a patient's medical conditions and/or medications are affecting his or her sexual desire and/or performance (Slinkard&Kazer, 2011).

Conclusion

Lack of awareness may span from prevention and treatment programs primarily targeting young adults. Consequently, this may cause the older population to believe they are not affected. Social marketing campaigns targeting older adults are necessary to encourage safer sex and raise awareness with messages that are age-appropriate and culturally sensitive. The CDC recommends routine HIV screening for persons up to age 64 (CDC, 2011). Persons over 64 should be counseled to receive HIV testing if they have risk factors. Also, intervention strategies to help older women negotiate safer sex are especially important.

The use of media such as television or magazine subscriptions geared towards the elderly can provide age-appropriate information regarding sexuality and STDs. Organizations such as AARP that target older adults could sponsor advertisements, send mailings, or include information in their various media outlets (Jeffers&Dibartolo, 2011). Health fairs and senior centers can also address sexual health teaching. Collaboration is needed from the client themselves to the family, health care providers, and policy makers.

Suggestions for better understanding this phenomenon include more research on patient and health care provider perspectives on the sexual health, as well as an initiation of discussions regarding sexual behaviors in the elderly in various settings.

References

AARP.(2010). *Sex, Romance and Relationships.AARP Survey of Midlife and Older Adults*. Retrieved August 15, 2013 from http://assets.aarp.org/rgcenter/general/srr_09.pdf

Andrews, W. (2000).Approaches to taking a sexual history.*J Womens Health Gend Based Med.*9(1):S21-S24. Retrieved September 4, 2013 fromhttp://www.clinicalgeriatrics.com/articles/Sexually-Transmitted-Diseases-Aging-Population/page/0/1#sthash.brUJ8gEx.dpuf

Annon, J. (1976). The PLISSIT model: A proposed conceptual scheme for the behavioral treatment of sexual problems. *Journal of Sex Education and Therapy*, 2(2), 1-15.

Boudes P, Balloue E, Sobel A. (1989). Pancytopenia as the presenting manifestation of HIV infection in the elderly.*Am GeriatrSoc*;37:l151.

Burgess, A.W. &Hanrahan, N.P. (2001) Identifying Forensic Markers in Elder Sexual Abuse.Final Report to the National Institure of Justice, Grant No. 2001-IJ-CX-K015. Retrieved August 15, 2013 from https://www.ncjrs.gov/App/Publications/Abstract.aspx?ID=238168

Bulman, P. (2010). Elder Abuse Emerges From the Shadows of Public Consciousness. National Institute of Justice; 265. Retrieved August 15, 2013 fromhttps://www.ncjrs.gov/pdffiles1/nij/grants/216550.pdf

Centers for Disease Control and Prevention. (2003).Public health and aging: Trends in aging-United States and Worldwide. *MMWR Weekly, 52,* 101-106.

Centers for Disease Control and Prevention.(2008). HIV/AIDS among persons aged 50 and older. Retrieved from www.cdc.gov/hiv/topics/over50/resources/factsheets/over50.htm.

Centers for Disease Control and Prevention.(2006). Sexually Transmitted Diseases Treatment Guidelines. *Morbidity and Mortality Weekly Report, 55*(RR-11).

Centers for Disease Control and Prevention.(2012).Reported Cases and Rates per 100,000 Population by Age, United States, 2007-2011.retrieved July 28, 2013 from http://www.cdc.gov/std/stats11/tables/10.htm

Centers for Disease Control and Prevention. (2012) Reported Cases and Rates per 100,000 Population by Age, United States, 2007-2011. Retrieved July 28, 2013 from http://www.cdc.gov/std/stats11/tables/21.htm

Centers for Disease Control and Prevention.(2012). Reported Cases and Rates per 100,000 Population by Age, United States, 2007-2011. Retrieved July 28, 2013 from http://www.cdc.gov/std/stats11/tables/34.htm

Centers for Medicare & Medicaid Services. 2012. Screening for Sexually Transmitted Infections (STIs) and High-Intensity Behavioral Counseling (HIBC) to Prevent STIs

Coon, C.W., Lipman, P.D., &Ory, M.G. (2003). Designing effective HIV/ AIDS social and behavioral interventions for the population of those age 50 and older. *Journal of Acquired Immune Deficiency Syndromes*, 33, S194-205.

Emlet, C. A. (2006). A comparison of HIV-stigma and disclosure patterns between older and younger adults living with HIV/AIDS. AIDS Patient Care and STDs, 20, 350–358.

Gurvinder, K., Subramanyam, A. & Pinto.C. (2011). Sexuality: Desire, activity and intimacy in the elderly. Indian J Psychiatry. 53(4): 300–306.

Jameson, M. (2011).Seniors' sex lives are up — and so are STD cases. *Orlando Sentinel. Retrieved* August 3, 2013 *from* http://articles.orlandosentinel.com/2011-04-18/health/os-seniors-stds-rise-20110416_1_std-cases-syphilis-and-chlamydia-seniors/2

Jena AB, Goldman DP, Kamdar A, et al. (2010). Sexually transmitted diseases among users of erectile dysfunction drugs: analysis of claims data. *Ann Intern Med*; 153:1-7.

Jeffers, L.A. &DiBartolo, M. (2011).Raising health care provider awareness of sexually transmitted disease in patients over age 50.*MedSurg Nursing*. Jannetti Publications.

Letvak, S., &Schoder, D. (1996). Sexually transmitted diseases in the elderly: What you need to know: The young aren't the only ones at risk for STDs. *Geriatric Nursing, 17*(4), 156-160.

Lindau S.T., Schumm L.P., Laumann E.O., et al. (2007). A study of sexuality and health among older adults in the United States.*N Engl J Med*; 357:762-774.

Luther VP.,Willkin AM. (2007). HIV infection in older adults.*ClinGeriatr Med*. 8(3), 567-83.

Kearney, F., Moore, A.R., Donegan, C.F., & Lambert, J. (2010). The ageing of HIV: Implications for geriatric medicine. *Age and Ageing, 39(5),* 536-541.

Kozier, B., Erb. (2008) *Kozier&Erb's Fundamentals of Nursing: Concepts, Process, and Practice,* 1031. Upper Saddle River, NJ: Pearson Prentice Hall.

Maes, C.A. & Louis, M. (2003).Knowledge of AIDS, perceived risk of AIDS, and at-risk sexual behaviors among older adults. *Journal of the Academy of Nurse Practitioners, 15,* 509-516.

Mildvan D. (2006).HIV and aging.*Curr Infect Dis Rep*. 8, 241-7.

National Center on Elder Abuse.(2010). Why should I care about elder abuse? Retrieved July 28, 2013 from www.ncea.aoa.gov/Main_Site/pdf/publication/NCEA_WhatIsAbuse-2010.pdf.

National Institute on Aging.(2009). HIV, AIDS and Older People.*Age Page 3(3).*

Purpora, A. (2012). Sexually Transmitted Diseases in the Aging Population. *Clinical Geriatrics, 20(12),*12-15.

Salzman, B. (2006). HIV: Associated transmission risks in older adults- an integrative review of the literature. *Journal of the Association of Nurses in AIDS Care*, 15(1), 50-59.

Savasta, A.M. (2004). HIV: Associated transmission risks in older adults-an integrative review of the literature. *Journal of the Association of Nurses in AIDS Care, 15(1),* 50-59.

Scura KW, Whipple B. (1990). Older adults as an HIV positive risk group.*J Gerontol Nurs;*16:6-10.

Slinkard, M. &Kazer, M.W. (2011).Older Adults and HIV and STI Screening: The Patient Perspective. *Geriatric Nursing*.32(5).

TalashekML.,Tichy AM., Epping H. (1990). Sexually transmitted diseases in the elderly-issues and recommendations.*J GeronlolNurs 16(4)*.33-40.