Sexually Transmitted Infections in Older Adults

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**Abstract**

There is an increasing prevalence of STIs(sexually transmitted infections) in older adults that has occurred over the last few decades. What the most current research has found is that this population has the knowledge of STIs and how they are transmitted, but are lacking the behavioral changes needed to prevent the transmission, such as using a condom. The behavioral change technique of using a seropositive facilitator to educate the older adult population on HIV is analyzed within this study.

Sexually Transmitted Infections in Older Adults

**Introduction**

 Sexually transmitted infections (STIs) are a rising issue in our elderly population. The Center for Disease Control and Prevention found that the rate of chlamydia infections among the older adults rose by thirty one percent, and the rate of syphilis infections among this same age group rose by fifty two percent (Center for Disease Control and Prevention, 2016, para 5). What these numbers show us is that there is an immense need for educational and behavioral changes within this age group regarding safe sex practices. It has been found through research that there are four main contributing factors to this ever expanding issue.

 The first contributing factor is that, within the last few decades, there has been a rise in the number of people in assisted living communities and nursing homes (Emanuel, 2014). These facilities allow older adults to live in close quarters, which could be compared to a college dormitory. As with college dormitories, these close living arrangements can create conducive environments for older adults to have sexual relationships (Emanuel, 2014). The second factor contributing to the rise in STIs in older adults is that with an ever improving medical field, people are able to live longer, healthier lives, which may allow them to stay sexually active longer (Emanuel, 2014). Third, older adults are from a generation where they may have missed the safe sex education in school, which would be a cause of their knowledge deficit in safe sex practices (Emanuel, 2014). Lastly, there has been an advancement in pharmacology, including drugs to treat erectile dysfunction – a disease that might have previously lead to a decrease in sexually activity. It has been found through research that “older men are 6 times less likely to use a condom when they are taking Viagra” (Emanuel, 2014). The cause of this statistic is unknown, but the repercussion of STD (sexually transmitted disease) transmission is immense.

 Though there is some recent research on this topic, there has not been any single effective intervention or strategies that have led to a significant decrease in the rate of STIs within this population. What research is finding is that older adults do have the knowledge about STI transmission and prevention through condom usage (Ferreira, Silva, Silva, Veloso, Marcolino, Santos, Soares, Leite, & Moreria, 2017). However, regardless of this knowledge, this age group still does not use condoms during sexual relations regularly (Ferreira et al., 2017).

 After researching five different studies about older adults, their knowledge and understanding of STIs, and different interventions being used to help increase the rate of condom usage and decrease the rates of STIs, it has been found that perhaps an intervention used to decrease STI rates in adolescents might provide the highest rate of behavioral change and increase the usage of condoms (Ballester-Arnal, Gil-Llario, Giménez-García, & Kalichman, 2015). This intervention is a behavior change technique called seropositive facilitator, and will be discussed in detail later (Ballester-Arnal et al., 2015). The hypothesis for this research proposal is that the rate of older adult condom usage will increase over the course of a year after a three hour educational seminar with an older adult who was diagnosed with HIV after the age of 65. The condom usage rate among the participants in the study will be periodically monitored on a monthly basis over a year after the initial educational seminar.

**Literature Review**

 The first study reviewed was written by MacDonald, Lorimer, Knussen and Flowers and honed in on interventions that would lead to increased condom use in older adults. The research study consisted of finding four different interventions from studies already done and then compared and contrasted the interventions to figure out which interventions were best at increasing condom use (MacDonald, Lorimer, Knussen, & Flowers, 2016). Between the four different studies, there were 565 participants total (MacDonald et al., 2016). The first intervention was in a classroom, face to face setting with a group of older adults. An intervention performed in this study was a role play exercise about condom negotiation (MacDonald et al., 2016). The second intervention was performed in the clinic setting, again in a group (MacDonald et al., 2016). The intervention performed with this group was more educational information being passed onto the participants, which included information on HIV, such as risky behaviors, approached to reduce harm, and communication skills which focused on assertiveness (MacDonald et al., 2016). The third intervention took place over the telephone, where the caller and the older adult talked about barriers to the use of condoms and the caller attempted to help the older adult with strategies and plans to overcome these barriers (MacDonald et al., 2016). Finally, the fourth intervention was online, and consisted of videos, tools, and written information about sexually transmitted diseases, along with information on how to talk to your primary care provider or partners about prevention of STDs (MacDonald et al., 2016). The results of this study concluded that all interventions were somewhat successful in increasing the rates of condom use in older adults (MacDonald et al., 2016). However, within each of these studies, the control group also increased the rate of condom use; therefore the interventions might not be the sole cause of increased condom use (MacDonald et al., 2016).

The second article examined, discussed a new and different method of STD screening by using an at home finger prick method, and then transferring the blood onto specially designed paper, which would then be mailed in to be analyzed for HIV, syphilis, and hepatitis B (Van Loo, Dukers-Muijrers, Heuts, Van Der Sande, & Hoebe, 2017). It was determined through this study, that this at-home, dried blood sample was “highly sensitive and specific to HIV, syphilis, and hepatitis B” (Van Loo et al., 2017). This method of STD screening could potentially increase the rates of people getting tested for STDs, due to the lack of embarrassing face to face interaction with healthcare providers, who may come off as judgmental (Van Loo et al., 2017).

The third study focused on the knowledge of STIs that sexually active older Australian’s have. The two goals of this study were identified as “examine the knowledge that older adults had about STIs and safe sex practices and identify sociodemographic differences in their knowledge level” (Lyons, Heywood, Fileborn, Minichiello, Barrett, Brown, Hinchliff, Malta, & Crameri, 2017, p. 278). The study consisted of 1,652 participants who participated in a fifteen question test which tested their knowledge of STIs (Lyons et al., 2017). The results of this study found that most of the participants knew: causes of STIs, symptoms, transmission, risk factors, that the risk does not decrease with age, and that STIs can be present without any overt symptoms (Lyons et al., 2017). However, the study found that this population was not fully aware of the benefits of condom use and that they prevent STIs transmission (Lyons et al., 2017).

 The fourth study analyzed the risk behaviors of independent elderly people on HIV transmission. Performed in Brazil, this study had 24 participants who did not have HIV or AIDS (Ferreira, Silva, Silva, Veloso, Marcolino, Santos, Soares, Leite, & Moreria, 2017). The participants filled out a questionnaire which asked questions about HIV, such as “how it is transmitted, condom use, shared syringes, and blood transfusions” (Ferreira et al., 2017, p. 34). While most of the participants knew how the disease is spread and knew that condoms were a way of prevention, most of the participants did not report using a condom during intercourse (Ferreira et al., 2017).

 Finally, the fifth study looked at the different interventions aimed at reducing the spread of HIV in Spanish adolescents. The reason for the inclusion of this study, even though it is looking at adolescents, is because a majority of research is aimed at reducing the spread of STDs in young people, while ignoring the older adult population. However, the interventions used with young people might be just as effective in educating the older adult population as well. Very true. This study examined six different interventions: two informational techniques, three behavioral change techniques, and one role play method (Ballester-Arnal, Gil-Llario, Giménez-García, & Kalichman, 2015). Of these six interventions, the one that was found to have the biggest impact on actual behavior change was one of the behavior change techniques, called seropositive facilitator (Ballester-Arnal et al., 2015). The method of this intervention was to present a young person who had contracted HIV to a group of young people, and have the person talk to the group about the risky behaviors that led to the diagnosis of HIV, their personal experience with HIV, problems they have experienced regarding social relationships, in addition to educational information about the prevention of transmission (Ballester-Arnal et al., 2015).

 The reviewed studies looked at condom use, a different approach to STD screening, STI knowledge, risk behaviors, and intervention to reduce the spread of HIV. The majority of these articles were in reference to the older adult. The one article that considers interventions in adolescents has the potential to be applied to the older adult. This study will be undertaken to determine if STI education can reduce the incidence of risky behaviors.

**Sampling Methods**

 The sampling method will be random selection of ten different nursing homes or assisted living facilities from around the Chicagoland area. The participants must be 65 years old or older, be sexually active, be single, and have had more than one sexual partner within the last five years. Older adults who are in a monogamous relationship or who are not currently sexually active will be excluded from this study. The research proposal will go through an institutional review board to ensure the protection of all participants. The participants will sign an informed consent form, after being given a document that explains what the study is and what information they will be expected to provide. The nursing homes or assisted living facilities will also be asked to give their approval for the study to take place within their facilities.

 A potential ethical dilemma could be if the older adult who was diagnosed with HIV after the age of 65 is still processing the diagnosis. Therefore there would need to be careful screening of this person. Screening could include a session with a psychologist to see if the person has had time to accept the diagnosis of HIV and is in the right state of mind to give a presentation about HIV to a group of older adults.

**Methodology**

 This research study will have a quasi-experimental design. The ten facilities will be divided in half and randomly assigned to either the experimental group or the control group. With the control group, there will be no education on condom use or STIs. These facilities will be tested for STIs at the beginning of the year, at the six month mark, and at the end of the year. All five groups will be asked at the beginning of the year if they regularly use condoms during intercourse. On a monthly basis, the participants will be asked two questions through a questionnaire: 1) if they have had sexual intercourse over the last month and 2) if they used a condom consistently while having intercourse.

The five experimental groups will be tested for STIs at the beginning of the year, at the six month mark, and at the end of the year, as well. These groups will be asked at the beginning of the experiment if they use condoms regularly during intercourse. After being tested for STIs, these five groups will undergo a three hour educational seminar with an older adult who was diagnosed with HIV after the age of 65. Topics that will be covered by this HIV positive person will include: the risky behaviors that led to the diagnosis, a description of their experience with HIV, signs and symptoms, ways to prevent the transmission, and how this disease has affected their social relationships. There will also be a time for participants to ask the HIV positive facilitator questions. Throughout the year, the five experimental groups will be asked on a monthly basis two questions through a questionnaire: 1) if they have had sexual intercourse over the last month and 2) if they used a condom consistently while having intercourse.

**Data Analysis**

 At the end of the year, two things will be analyzed: the rate of STIs and the rate of condom usage. The rate of STIs within each facility will be analyzed as either increased, decreased, or stayed the same. The rate of condom usage will be calculated using the initial question of “do you regularly use condoms during intercourse?” and comparing this to the rate of condom usage from the monthly data collection to see if the rates of condom usage increased, decreased, or stayed the same. The best tool to analyze data from this experiment might perhaps be the chi-square test of independence. The reason for using this test is because you need to have two variables, and what this test figures out is if they are independent or related. This would be useful to see if the rate of condom usage and rate of STIs are independent of each other or related.

**Conclusion**

 Through the education by a person who was diagnosed with HIV later in life, this research could perhaps bring about the behavioral change that is very much so needed in this population to increase the rate of condom usage, and therefore decrease the rate of STIs. The implication that this research study has on nursing could be huge, because nurses are seeing more and more older adults with STIs. There is a need for a community approach of primary prevention through education in order to reduce these numbers and increase the level of wellness in this specific population.

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