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Knowledge, Attitudes and Practices on HIV/AIDS and other Selected STIs among Persons Aged 50 Years and over Visiting Randomly Selected Public Health Facilities in Nairobi County Kenya

Daniel Nyamongo Sagwe

Jomo Kenyatta University of Agriculture and Technology,
College of Health Sciences, Nairobi Kenya

Helen Kutima

Jomo Kenyatta University of Agriculture and Technology,
College of Pure and Applied Sciences, , Nairobi Kenya

Abstract

Globally, the elderly population is aging and changing in composition with the over 50 years of age constitutes the fastest-growing segment of the aged population. There has been scanty evidence indicating that sexual risk-taking behavior is no longer confined to young population ages (15-49) years but among vulnerable older people as well. The study aims to investigate on Knowledge, Attitudes and Practices on HIV/AIDS and other selected STIs among persons aged 50 years and over. This is a cross-sectional facility-based study with qualitative analysis on responses obtained from 356 randomly selected patient participants 50 years and over visiting selected health facilities in Nairobi County in Kenya. Overall assessment of the knowledge on symptoms of STI score revealed that 12.1% of the participants scored 'good' on knowledge of symptoms of STI, 89.0% scoring (Good) in attitude on prevention against contracting HIV and 40.5% scored high on the risky sexual practices of contracting HIV. Little knowledge is more likely to render participants unprotected due to potential risks to condom use - difficulties in communication between partners, concern for lack of trust, and feelings that the male partner controls condom use.

Key words: Elderly; HIV; AIDS; STI

Introduction

Globally, the elderly population is aging and changing in composition with the over 50 years of age constituting the fastest-growing segment of the aged population (Ahn & Kim, 2004). The global available data estimates by the World Health Organization (WHO) shows that 340 million new cases of curable sexually transmitted diseases (STIs) occur annually throughout the world in men and women aged 15-49 years, with elderly over 50 years excluded (WHO, 2001). Although it is widely accepted that young people in the recent past have remained the focus of sexual health programs, there has been scanty evidence indicating that sexual risk-taking behavior is no longer confined to young population ages (15-49) years but among vulnerable older people as well (Ford *et al*, 2002). Despite recent declines in global HIV/AIDS and STIs mortality, HIV/AIDS is still the fifth leading cause of global DALYs in 2010 with high-burden in countries where HIV/AIDS did not make the top 10 leading causes of burden (Ortblad KF *et al*, 2010). Although the proportion of the burden arising from older people is highest in high-income regions, disability-adjusted life years (DALYs) per head are 40% higher in low-income and middle-income regions, accounted for by the increased burden per head of population arising from infectious disorders (including HIV AIDS) and cardiovascular diseases (Martin *et al*, 2014).

Study Objectives

To investigate on Knowledge, Attitudes and Practices on HIV/AIDS and other selected STIs among persons aged 50 years and over.

Methods

This is a cross-sectional facility based study with qualitative analysis on responses obtained from 356 randomly selected patient participants 50 years and over visiting selected health facilities in Nairobi County in Kenya. A face to face interview with a questionnaire was used to get responses on participant knowledge, attitudes and sexual practices from randomly selected participants. This involves analysis of respective scores in knowledge on symptoms of HIV and STI, Sexual Practices their attitude on prevention against contracting sexually transmitted diseases and risk of contracting HIV and STIs among the Study Participants. A score of one was awarded to each response and a percentage score calculated out of a total possible score. Those who scored (0-25%) were classified to have *low knowledge/poor*, those who scored (25 \geq 50%) as *average/better* while those scoring (> 50%) as *above average/good*.

Study Results

Knowledge among the Study Participants: Results from participants showed that three-quarter (75.0%) reported of knowing what and STIs are. Most frequently mentioned symptoms are; genital discharges (43.8% and 25.1%); genital itching (24.3% and 16.5%); Abdominal pain (22.5% and 20.2%), genital sores/ulcers (22.1% and 10.9%), swelling in genital area (21.3% and 7.9%), foul smelling discharge (18.4% and 17.6%), blood in urine (13.1% and 3.4%) and

redness/inflammation in genital area (12.7% and 7.5%). Overall assessment of the knowledge on symptoms of STI score revealed that 12.1% of the participants scored 'good' on knowledge of symptoms of STI.

Table 1: Knowledge on symptoms of STI among the Study Participants

Variables	n=356	%	95% CI	
			Lower	Upper
Knows what STIs are				
Yes	267	75	70.5	79.5
No	89	25	20.5	29.5
Knowledge on Symptoms of STI in males				
Genital discharges	117	43.8	37.8	49.8
Genital itching	65	24.3	19.2	29.4
Abdominal pain	60	22.5	17.5	27.5
Genital sores/ulcers	59	22.1	17.1	27.1
Swelling in genital area	57	21.3	16.4	26.2
Foul smelling discharge	49	18.4	13.8	23.0
Blood in urine	35	13.1	9.1	17.1
Redness/inflammation in genital area	34	12.7	8.7	16.7
Genital warts	18	6.7	3.7	9.7
Impotence/No erection	9	3.4	1.2	5.6
Loss of weight	8	3	1.0	5.0
Hard to get pregnant	0	0.0	0.0	0.0
Knowledge on Symptoms of STI in females				
Abdominal pain	54	20.2	15.4	25.0
Genital discharges	67	25.1	19.9	30.3
Foul smelling discharge	47	17.6	13.0	22.2
Redness/inflammation in genital area	20	7.5	4.3	10.7
Swelling in genital area	21	7.9	4.7	11.1
Genital sores/ulcers	29	10.9	7.2	14.6
Genital warts	13	4.9	2.3	7.5
Genital itching	44	16.5	12.0	21.0
Blood in urine	9	3.4	1.2	5.6
Impotence/No erection	0	0.0	0.0	0.0
Hard to get pregnant	2	0.7	-0.3	1.7
Don't know	37	13.9	9.8	18.0

Not applicable (answered no to knowledge of STI)	89			
<i>Knowledge score on symptoms of STI</i>				
No Knowledge	126	35.4	30.4	40.4
Below average Knowledge	187	52.5	47.3	57.7
Good Knowledge	43	12.1	8.7	15.5

The most commonly cited preventive strategies against contracting HIV and STIs include; use of condoms (63.5%), limiting sex to one partner/stay faithful to one partner (58.7%), abstaining from sex (56.7%), avoiding sex with prostitutes (20.8%), limiting numbers of sex partner (18.5%), avoid sharing razors/blades (13.8%) and avoid sex with persons with multiple partner (12.9%), (Table 2). Overall assessment score on the knowledge of preventive strategies revealed that 9.8% of the participants scored 'good' on preventive strategies against contracting HIV.

Table 2: Knowledge on preventive strategies against contracting HIV and other STIs among the Study Participants – multiple responses

Variables	n=356	%	95% CI	
			Lower	Upper
<i>Preventive strategies</i>				
Use condoms	226	63.5	58.5	68.5
Limit sex to one partner/stay faithful to one partner	209	58.7	53.6	63.8
Abstain from sex	202	56.7	51.6	61.8
Avoid sex with prostitutes	74	20.8	16.6	25.0
Limit numbers of sex partner	66	18.5	14.5	22.5
Avoid sharing razors/blades	49	13.8	10.2	17.4
Avoid sex with persons with multiple partner	46	12.9	9.4	16.4
Avoid sex with homosexuals	22	6.2	3.7	8.7
Avoid sex with drug users	17	4.8	2.6	7.0
Avoid blood transfusions	13	3.7	1.7	5.7
Avoid injections	10	2.8	1.1	4.5
Avoid kissing	6	1.7	0.4	3.0
Avoid mosquito nets	2	0.6	0.0	1.4
Seek protection from traditional healers	1	0.3	0.0	0.9
Don't know	30	8.4	5.5	11.3
<i>Knowledge score on preventive strategies against contracting HIV and other STIs</i>				
No Knowledge	30	8.4	5.5	11.3
Below average Knowledge	291	81.7	77.7	85.7

Good Knowledge	35	9.8	6.7	12.9
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A greater majority of the participants (80.1%) reported to have heard of VCT, (Table3). Out of 285 participants that have ever heard of VCT, the most commonly mentioned sources of information include, mass media (35.1%), previous VCT visits (26.7%), through friends (21.8%) and through family members (12.3%), (Table 3). Distribution of other specific sources of information was less than 10%. Majority of the 285 participants who have ever heard of VCT (73.3%) indicated to have visited Government Hospital/Dispensary/Health center (56.5%) and Clinic/VCT center (16.8%) for VCT services.

Table 3: Awareness of HIV Testing Services among the Study Participants

Variables	n=356	%	95% CI	
			Lower	Upper
Ever heard of VCT				
Yes	285	80.1	76.0	84.2
No	71	19.9	15.8	24.0
Source of information				
Media source	100	35.1	29.6	40.6
Previous VCT visits	76	26.7	21.6	31.8
Through a friend	62	21.8	17.0	26.6
Family members	35	12.3	8.5	16.1
From health personnel during STI treatment	22	7.7	4.6	10.8
Billboard	1	0.4	0.0	1.1
Church	1	0.4	0.0	1.1
EDAP-HIV/TB	1	0.4	0.0	1.1
Health facility	1	0.4	0.0	1.1
Media	1	0.4	0.0	1.1
Ministry of health	1	0.4	0.0	1.1
Outreach	1	0.4	0.0	1.1
Self	5	1.8	0.0	3.3
Work place	1	0.4	0.0	1.1
Not applicable (Answered NO ever hearing STI)	71			
Place where VCT services were sought				
Government Hospital/Dispensary/Health center/Clinic	161	56.5	50.7	62.3
VCT center	48	16.8	12.5	21.1
Private hospital/Dispensary/Health Center/Clinic	23	8.1	4.9	11.3

Community Hospital/Dispensary/Health Center/Clinic	21	7.4	4.4	10.4
Nursing/Maternity Home	3	1.1	0.0	2.3
Blood transfusion service	2	0.7	0.0	1.7
Tested at work place	1	0.4	0.0	1.1
Not sure	26	9.1	5.8	12.4
Not applicable (Answered NO ever hearing STI)	71			

Attitudes among the Study Participants

A greater majority of the participants (86.5%) indicated that people can reduce their chances of contracting HIV by having single sex partners. More than two-thirds (68.5%) of the participants indicated that one can get HIV through a Mosquito bite. On further probing, 79.8% indicated that there is a greater chance of getting HIV/AIDS in a non-protected sex. Similarly, 79.8% of the participants indicated that there is a greater chance of contraction HIV/AIDS if someone is infected with an STI, (Table 4). Here again, multiple responses affected the percentage tallying. Overall assessment of the attitude score revealed that 89.0% of the participants had appropriate attitude (Good) on prevention against contracting HIV.

Table 4: Attitudes on prevention against contracting HIV among the Study Participants

Variables	n=356	%	95% CI	
			Lower	Upper
People can reduce their chances of contracting HIV by having single sex partners				
Yes	308	86.5	83.0	90.0
No	14	3.9	1.9	5.9
Don't Know	34	9.6	6.5	12.7
One get HIV through a Mosquito bite				
Yes	14	3.9	1.9	5.9
No	244	68.5	63.7	73.3
Don't Know	98	27.5	22.9	32.1
Chances of getting HIV/AIDS in a non-protected sex				
Small	9	2.5	0.9	4.1
Moderate	31	8.7	5.8	11.6
Great	284	79.8	75.6	84.0
No risk	1	0.3	0.0	0.9
Have HIV	7	2	0.5	3.5

Don't know	24	6.7	4.1	9.3
Chances that one with an STI can also be at risk of AIDS				
Small	13	3.7	1.7	5.7
Moderate	44	12.4	9.0	15.8
Great	183	51.4	46.2	56.6
No risk	7	2	0.5	3.5
Have HIV	2	0.6	0.0	1.4
Don't know	107	30.1	25.3	34.9
<i>Attitude score on prevention against contracting HIV</i>				
No attitude	19	5.3	3.0	7.6
Below average attitude	20	5.6	3.2	8.0
Good attitude	317	89	85.7	92.3

Approximately one-quarter of the participants (24.2%) indicated that treatment with ARV medications can reduce risk of transmission of HIV infection. Further, about one-half of the participants (49.4%) disagreed with the statement that treatment with ARV medications makes using condom less important. 57.6% indicated that it is important to use condoms as it was before ARV medication became available. 44.4% disagreed with the statement that treatment with ARV medications takes the worry of sex whereas 39.0% indicated that they would stop using condoms if a cure for HIV were discovered. 50.6% indicated that they are less concerned now about infecting someone else. Overall assessment of the attitude score revealed that 48.9% of the participants had appropriate good attitude on treatment with ARV among the study participants.

Table 5: Attitudes on Treatment with ARV among the Study Participants

Variables	n=356	%	95% CI	
			Lower	Upper
Treatment with ARV medications can reduce risk of transmission of infection				
TRUE	86	24.2	19.8	28.6
Untrue	109	30.6	25.8	35.4
Don't Know	161	45.2	40.0	50.4
Treatment with ARV medications makes using condom less important				
TRUE	23	6.5	3.9	9.1
Untrue	176	49.4	44.2	54.6
Don't Know	157	44.1	38.9	49.3
It is as important to use condoms as it was before ARV medication became available				

TRUE	205	57.6	52.5	62.7
Untrue	17	4.8	2.6	7.0
Don't Know	134	37.6	32.6	42.6
It is never safe to have sex without a condom regardless of ARV treatment				
TRUE	189	53.1	47.9	58.3
Untrue	28	7.9	5.1	10.7
Don't Know	139	39	33.9	44.1
Treatment with ARV medications takes the worry of sex				
TRUE	25	7	4.3	9.7
Untrue	158	44.4	39.2	49.6
Don't Know	173	48.6	43.4	53.8
If a cure for HIV were discovered, I would stop using condom				
TRUE	84	23.6	19.2	28.0
Untrue	139	39	33.9	44.1
Don't Know	133	37.4	32.4	42.4
Because of ARV medications, I am less concerned now about infecting someone else.			0.0	0.0
TRUE	33	9.3	6.3	12.3
Untrue	180	50.6	45.4	55.8
Don't Know	143	40.2	35.1	45.3
<i>Attitude score on treatment with ARV</i>				
No attitude	92	25.8	21.3	30.3
Below average attitude	90	25.3	20.8	29.8
Good attitude	174	48.9	43.7	54.1

Sexual Practices among the Study Participants

Results showed that 50.6% of the participants had a sexual partner in the last 6 months. Among them, 36.6% had disclosed their HIV status to their partner(s), 77.1% had sex with the partner(s) in the last 6 months. Out of 175 participants who had a sexual partner in the last 6 months the majority (54.9%) did not know HIV status of the most recent regular partner while 2.3% indicated that their partner was HIV positive. On further probing, 65.1% reported that they did not use a condom the last time they had sexual intercourse with this partner.

Analysis of sexual practices among the participants was summarized in to a score using the nine variables presented (Table 6). Overall assessment of the sexual practice score revealed that 40.5% of the participants were at a high score on the risk of contracting HIV.

Table 6: Sexual Practices among the Study Participants

Variables	n=356	%	95% CI	
			Lower	Upper
Have had a sexual partner in the last 6 months				
Yes	180	50.6	45.4	55.8
No	176	49.4	44.2	54.6
Have disclosed HIV status to this partner				
Yes	111	63.4	56.3	70.5
No	64	36.6	29.5	43.7
Not applicable (Already answered No to sex in 6 months)				
Have had sex with the partner(s) in the last 6 months				
Yes	135	77.1	70.9	83.3
No	40	22.9	16.7	29.1
Not applicable (Already answered No to sex in 6 months)				
Knows HIV status of the most recent regular partner				
HIV Positive	4	2.3	0.1	4.5
HIV Negative	75	42.9	35.6	50.2
Don't know	96	54.9*	47.5	62.3
Not applicable (Already answered No to sex in 6 months)				
Used a condom the last time had sexual intercourse with this partner				
Yes	16	9.1	4.8	13.4
No	114	65.1	58.0	72.2
Don't remember	45	25.7*	19.2	32.2
Not applicable (Already answered No to sex in 6 months)				
<i>Sexual practices score on the risk of contracting HIV</i>				
High risk	144	40.5	35.4	45.6
Moderate risk	37	10.4	7.2	13.6
No risk	175	49.1	43.9	54.3

*incomplete data

Some of the commonly cited reasons were; condoms reduces sexual pleasure (11.4%), was difficult to discuss with partner (11.4%), was a marriage partner (8.8%), condoms not available (8.8%), Partner's suspicion about HIV status (7.0%), Trust each other (6.2%). Knowledge of HIV status (purportedly HIV negative) was the reason why 3.6% of the partners did not use a condom.

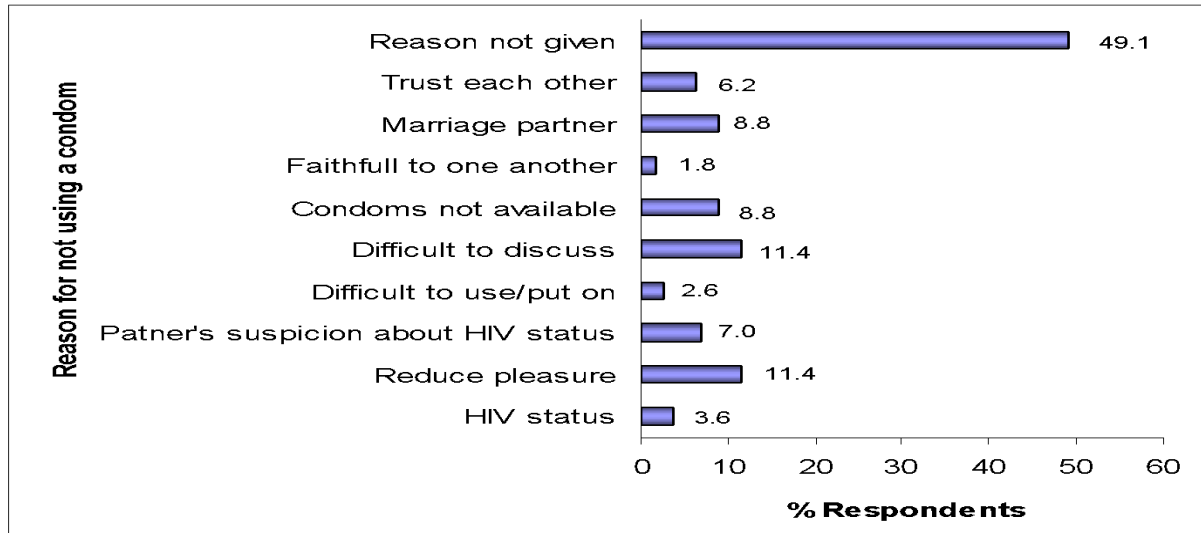


Figure 1: Reasons for not using a condom during last sexual contact among study Participants

Discussion

Participant Knowledge: Although it is evident that overall knowledge score of 'good' on prevention against contracting HIV was 89%, participants' similar 'good' score on preventive strategies against HIV was just 9.8%. This implies that people 50 years and over are less knowledgeable about STIs and therefore less likely to protect themselves. This is consistent with a study done elsewhere that showed almost 60% of older single women who had been sexually active during the past 10 years had engaged in sex without a condom (Lindau et al, 2006). Amongst the rural African American women, study conducted established that more than half of older rural African American was not aware to the risk factors to STI prevention such that they engage in sex without a condom (Winningham et al, 2004).

Further evidence available in other studies further gives evidence that little knowledge is more likely to render participants unprotected due to potential risks to condom use - difficulties in communication between partners, concern for lack of trust, and feelings that the male partner controls condom use (Zablotsky & Kennedy, 2003).

Comparable studies have also shown that older persons had misconceptions about HIV and other STIs risks, such as believing that the virus can be transmitted only by blood transfusions or casual contact (Senior HIV Prevention Project, 2011). Only 13% of older women in one study said that condoms were effective prevention (Henderson, *et al*, 2004).

Participant Attitudes: Older people often mistake the symptoms of STIs for the aches and pains of normal aging, so they are less likely to get tested (Zingmond *et al*, 2001; National Institute on Aging, 2012). This is shown by the study findings indicating that although 33% of respondents had visited participating facilities in the past 6 months, 5% of them cited NCDs as reason for

visiting and just 0.3% had sought STIs management in spite the fact that they had quite high prevalence for various STIs under study, and these results are consistent with another study by David *et al*, 2002.

Further comparable evidence has been shown in another study in this cohort at time of death with no history of HIV/AIDS who 6.2% of men and 8.9% of women were found to be HIV-seropositive, but more than 60% of those patients who tested HIV-positive had no documented or identifiable risk factors for HIV due to perception of not being sexually risky. Hence they are discriminated or stigmatized at health facilities as a determinant to elderly delayed or later testing, diagnosis and reluctance to seek appropriate services. They are then less likely to talk about their sex lives or drug use with their doctors, and doctors don't tend to ask their older patients about sex or drug use. (Zingmond *et al*, 2001; National Institute on Aging, 2012; el-Sadr & Gettler 1995; Gott *et al*, 1999).

Sexual Practices: The study results gave evidence showing a substantial proportion of 50.6% study respondents stating having maintained their sexual activity within six months to the study, 54.9% not having partner HIV status and 65.1% reporting not using a condom the last time they had sexual intercourse with this partner. This is justified by absence of elderly people programs at national levels programs stereotyping older people as being sexually inactive and their almost universal omission from prevention programs, due to lack of a substantial evidence base on STIs in older persons (Jaleel *et al*, 1999; Gott *et al*, 1998; Gott, 2001). As a result, many elderly people do not perceive themselves as at risk for HIV do not use condoms even when they do not know sero-status of recent sexual partner (Murphree & DeHaven, 1995). Elderly people are increasingly at risk of STIs due to their physiological changes that occur with age (Rees *et al*, 2005).

In another survey conducted among older adults, 73% of persons aged 57–64 had had sex during the past year, as had 53% of those aged 65–74 and 26% of those aged 75–85, (Lindau *et al*, 2007).

Conclusion

The limited knowledge in the study participants and that many do not know HIV status of sexually partners or seek to know is an indicator for the high HIV and HSV prevalence. This may render this cohort missing opportunities to receive prevention messages such as HIV testing, or make an early diagnosis that could help their patients get early care. This is compounded by the elderly attitude of most of them not using a condom even when they are unaware of HIV status of their sexual partners. This is more particularly when the elderly frequency for medical visits to hospital shadows their vulnerability to sexual risk factors. Hence, they are likely to perceive themselves without risk to STI and even HIV due to limited knowledge on their body functions and preventive strategies. As a result, they are less likely to talk about their sex lives or

drug use with their doctors, and doctors don't tend to ask their older patients about sex or drug use.

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