# **Knowledge and Perception of HIV Prevention Through Condom Use Among Midlife** and Older Adults in Calabar, Nigeria

EE Philip-Ephraim<sup>1</sup>, ANI Gyuse, NE Udonwa<sup>2</sup>, EJ Peters<sup>1</sup>, CC Anyanechi<sup>1</sup>

## **ABSTRACT**

Objectives: Older people are at increasing risk of HIV/AIDS and other sexually transmitted diseases. The use of condoms which can protect both partners from sexually transmitted infections (STIs) including HIV during vaginal and anal sex is mostly neglected by them. In fact, postmenopausal women may not see the need for condom use when they are no longer at risk for pregnancy. Even though HIV/AIDS in older patients carry a high mortality, it is many times neglected by even healthcare providers because of the belief that older persons are no longer sexually active. This study aimed to determine the perception and knowledge of condom use as a strategy for HIV/AIDS prevention among midlife and older adults in Calabar, Nigeria.

**Method:** A cross-sectional study was carried out to identify the perception and knowledge of HIV transmission and condom use among adults over 50 years of age, in the University of Calabar Teaching Hospital, Calabar, Nigeria. A structured questionnaire was used to get the demographic data, sources of information about the disease, knowledge about the use of condom and its efficacy in preventing the disease.

Results: A total of 488 participants were interviewed, comprising 263 males (53.9%) and 225 females (46.1%). Most of them (83.8%) were married and the rest (16.2%) were single. The majority of the respondents (368, 75.7%) got their information about HIV/AIDS transmission and prevention from the television. Other sources of information for respondents on HIV/AIDS were awareness campaigns (43.5%), newspapers (38.6%), friends (37.3%) and neighbours (27.1%). Three hundred and four (62.3%) of the respondents said that they had used condoms and believed that condoms could effectively prevent transmission of STIs including HIV compared to the one hundred and eighty-four (31.7%) who opined otherwise. Abstinence was the major mode of prevention of the disease among respondents while unprotected sexual intercourse was identified by the majority of the respondents (87.5%) as a high risk factor.

Conclusion: There should be more public education on HIV/AIDS to midlife and older adults.

Key Words: Condom, HIV/AIDS, midlife, older adults, perception, prevention

# Conocimientos y Percepción de la Prevención del VIH a Través del uso del Condón entre Adultos de Mediana y Avanzada edad en Calabar, Nigeria

EE Philip-Ephraim<sup>1</sup>, ANI Gyuse, NE Udonwa<sup>2</sup>, EJ Peters<sup>1</sup>, CC Anyanechi<sup>1</sup>

### **RESUMEN**

Objetivos: Las personas de edad más avanzada enfrentan un riesgo creciente de VIH/SIDA y otras enfermedades de transmisión sexual. El uso de condones que pueden proteger a las parejas de las infecciones de transmisión sexual (ITS) – incluyendo el VIH – durante el sexo vaginal y anal, es descuidado la mayor parte de las veces. De hecho, las mujeres post-menopáusicas pueden no ver la necesidad del uso del condón cuando no corren ya más riesgo de salir embarazadas. Aunque el VIH/SIDA en los pacientes más viejos conlleva una mortalidad alta, a menudo es descuidado por los proveedores de salud debido a la creencia de que las personas de mayor edad no están ya sexualmente activas. Este estudio se propuso determinar la percepción y los conocimientos del uso del condón como una estrategia para la prevención de VIH/SIDA entre los adultos de mediana y avanzada edad en Calabar.

From: <sup>1</sup>Department of Internal Medicine, University of Calabar Teaching Hospital, Calabar, Nigeria and <sup>2</sup>Department of Family Medicine, University of Calabar Teaching Hospital, Calabar, Nigeria.

Correspondence: Dr ANI Gyuse, Department of Family Medicine, University of Calabar Teaching Hospital, Calabar, CRS, Nigeria. email: ngugyuse@yahoo.com

Metodología: Se llevó a cabo un estudio transversal con el fin de identificar la percepción y los conocimientos de transmisión de VIH y el uso del condón entre los adultos mayores de 50 años de edad, en la Universidad del Hospital Docente de Calabar, en Cross River State. Se aplicó un cuestionario estructurado para obtener los datos demográficos, las fuentes de información sobre la enfermedad, así como el conocimiento sobre el uso del condón y su eficacia para prevenir la enfermedad.

Resultados: Un total de 488 participantes fueron entrevistados, de los cuales 263 eran varones (53.9%) y 225 hembras (46.1%). La mayoría de ellos (83.8%) estaban casados y el resto (16.2%) eran solteros. La mayoría de los encuestados (368, 75.7%) recibió la información que poseían sobre la transmisión y prevención del VIH/SIDA, a través de la televisión. Otras fuentes de información para los encuestados sobre el VIH/SIDA fueron las campañas de concientización (43.5%), los periódicos (38.6%), los amigos (37.3%) y los vecinos (27.1%). Trescientos cuatro (62.3%) encuestados dijeron que habían usado condones y creían que los condones podían prevenir de forma efectiva la transmisión de ITS, incluyendo el VIH, en comparación con los ciento ochenta y cuatro (31.7%) que opinaban diferente. La abstinencia fue el modo mayor de prevención de la enfermedad entre los encuestados, mientras que las relaciones sexuales sin protección fueron identificadas como un factor de riesgo alto por la mayoría de los entrevistados (87.5%)

**Conclusión:** Debe aumentarse la educación pública sobre el VIH/SIDA para las personas de mediana y avanzada edad.

Palabras claves: Condón, VIH/SIDA, adultos de mediana edad, adultos de avanzada edad, percepción, prevención

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#### INTRODUCTION

The control of HIV/AIDS through the promotion of condom use has been a major thrust of transmission control efforts in Nigeria (1, 2). Condom is a key component of combination prevention strategies that individuals can choose at different times in their lives to reduce their sexual risk exposure to HIV. In fact, the male latex condom is the single, most efficient, available technology to reduce the sexual transmission of HIV and other sexually transmitted infections (3, 4). This is done through information, education and skills-based trainings to equip the sexually active component of the population to take appropriate decisions while engaging in sexual activity.

The majority of midlife and older adults report moderate or high levels of sexual interest and activity well into their seventies (3, 5, 6, 7). They are thus at increasing risk of HIV/AIDS and other sexually transmitted disease (3, 5, 8). This is because despite the majority being sexually active, only a small proportion use condom which can protect both partners from sexually transmitted infections (STIs) including HIV during vaginal and anal sex (5, 8). In fact, postmenopausal women may not see the need for condom use when they are no longer at risk of pregnancy (4, 5). Also, because the vaginal wall thins with age, this increases the susceptibility of older women to HIV-infection through sexual intercourse (9). HIV-infection in the elderly carry a high mortality if diagnosed (5, 8). Unfortunately, many healthcare providers do not even look for sexually transmitted diseases in older patients because of the perception that they are no longer sexually active. The healthcare providers working with the elderly patients who may be at risk of developing HIV-infection also find it difficult distinguishing the symptoms which are hallmarks of ageing and those indicative of HIV (9).

The older segment of the population have largely been neglected since the first diagnosis of the HIV/AIDS epidemic now in its third decade despite the array of resources targeted at "high risk" populations like gay men, intravenous drug users and young people to control the HIV/AIDS epidemic (5, 6). Whether the issue is prevention, diagnosis, medical care or social services, the special needs of older people is seldom a priority. However, it must be noted that with increasing longevity, midlife and older adults may soon become major contributors to the HIV/AIDS epidemic. Because of this general lack of awareness in older adults, they have been omitted from prevention and intervention efforts and research fields (4, 10).

The Health Belief Model provides a theoretical framework for considering the consistent use of condom for protection against HIV-infection. This model suggests that there are three major factors that influence the likelihood of consistent condom use. These are the perception of the threat of contracting HIV/AIDS, the benefits of altering behaviour to prevent HIV and barriers to changing behaviour. There is thus the need to understand sexual practices that impede condom use as well as barriers to their use (11).

This study was an attempt to investigate the perception and knowledge of HIV transmission and the use of condom among the older population so as to offer a guide on the appropriate measures that could help control HIV-infection among them. This can also be a basis for advocating HIV/AIDS control measures targeting this vulnerable but often forgotten segment of the society.

#### SUBJECTS AND METHODS

Study Area: The study was carried out in Calabar, the capital city of Cross River State, located in the oil rich Niger Delta region of Nigeria. Based on the 2006 population census (12), the population of the city is estimated at about 371 022 inhabitants and is generally regarded as Nigeria's tourist haven. The University of Calabar Teaching Hospital is located in Calabar metropolis and is the only tertiary health institution in Cross River State receiving patients directly or through referral from all other health institutions in the state and other neighbouring states like Akwa Ibom, Abia, Benue and even the neighbouring Republic of Cameroon.

The General Outpatient Clinic (GOPC) is the uptake point for all patients excluding emergencies. It receives all patients irrespective of age, gender, parity or race. It is the busiest part of the hospital receiving about 2000 patients monthly. The GOPC is manned by Family Physicians made up of consultants and residents. It also has an Observation ward for patients needing short term care.

**Procedure**: The subjects recruited into the study were patients aged 50 years and above attending the outpatients' clinic of the University of Calabar Teaching Hospital located in the city of Calabar. All midlife and older patients attending the outpatient clinic during the study period were eligible for the study. Thus, eligible patients were recruited into the study sequentially over the period of six months (February 1 - July 31, 2008). In all, 488 subjects gave informed consent and were included in the study. A structured questionnaire was either interviewer administered (for the illiterate or by choice) or self-administered (for literate subjects) to the selected patients who met the inclusion criteria and gave informed consent. Information obtained from the questionnaires included age, gender, sources of information on HIV transmission, knowledge on the risk factors for HIV transmission, use of condom and its effectiveness in preventing STIs including HIV.

**Inclusion and Exclusion Criteria:** All patients aged between 50 and 80 years were eligible to be recruited into the study if they gave consent. All patients aged above 80 years, who declined consent and who were very ill were excluded from the study.

**Analysis of Results**: Result obtained were analysed using Epi Info version 2002, while p values < 0.05 were considered significant.

#### **RESULTS**

A total of 488 subjects were interviewed over the study period. Table 1 shows the demographic characteristics of the respondents. Those aged 50–59 years were 303 (62.1%), 60–69 years were 143 (29.3%) and 70–79 years were 42 (8.6%). The gender distribution of subjects showed that 263 (53.9%) were males while 225 (46.1%) were females. The

Table 1: Demographic characteristics of respondents

Characteristic	Frequency (n)	Percentage (%)			
Age (years)					
50 – 59	303	62.1			
60 - 69	143	29.3			
70 - 79	42	8.6			
Total	488	100			
Gender					
Male	263	53.9			
Female		225 46.1			
Total	488	100			
Marital Status					
Married	409	83.8			
Single	79	16.2			
Total	488	100			

study group was made up of 83.8% married persons while 16.2% were single.

Figure 1 shows that the respondents got information about HIV/AIDS transmission and prevention from several

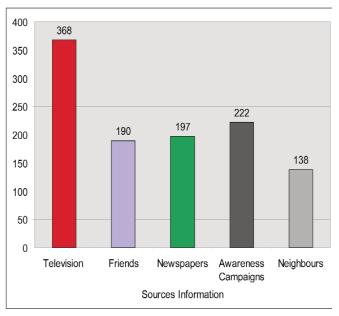


Fig. 1: Respondents' sources of information about prevention of HIV-infection through condom use (n = 488).

sources. Three hundred and sixty-eight (75.7%) obtained their information from the television, 190 (37.3%) from friends, 197 (38.6%) from newspapers, 222 (43.5%) from awareness campaigns and 138 (27.1%) got information from neighbours.

Unprotected sexual intercourse was identified by 427 (87.5%) of the respondents as a high risk behaviour for HIV transmission as compared to the 61 (12.5%) respondents who regarded unprotected sex as low risk behaviour for HIV transmission (p < 0.05). This is shown in Figure 2.

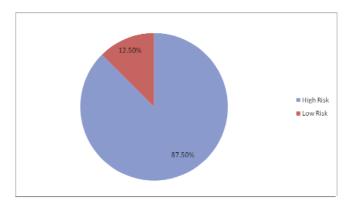


Fig. 2: HIV risk perception of respondents to unprotected sex

Table 2 shows respondents knowledge of HIV/AIDS prevention and transmission. The risks for transmission of

Table 2: Respondents' knowledge and reception of HIV transmission and prevention

Parameter	Yes (%)	No (%)	Total (%)
Prevention			
Condom Use	304 (62.3)	184 (37.7)	488 (100)
Abstinence	394 (80.7)	94 (19.3)	488 (100)
Older adults prone to HIV	199 (40.8)	289 (59.2)	488 (100)
Transmission			
Blood transfusion	400 (82.0)	88 (18.0)	488 (100)
Needle pricks	140 (28.7)	348 (71.3)	488 (100)
Mother-to-child	220 (45.1)	268 (54.9)	488 (100)
Sexual intercourse	304 (62.3)	184 (37.7)	488 (100)
Kissing	378 (77.5)	110 (22.5)	488 (100)
Hugging	11 (2.3)	477 (97.7)	488 (100)
Shaking hands	472 (96.7)	16 (3.3)	488 (100)

HIV-infection identified by the respondents were blood transfusion 400 (81.9%), needle pricks 140 (59%), mother-to-child transmission 220 (45.1%), oral sex 304 (62.3%), hugging 11 (2.3%), kissing 378 (77.5%) and shaking of hands 472 (96.7%). Three hundred and four (62.3%) respondents admitted to having used condoms and believed that condoms could effectively prevent transmission of STIs including HIV compared to the 184 (31.7%) who opined otherwise (p < 0.05) while 394 (80.7%) of the respondents advocated abstinence as a way of preventing HIV/AIDS. Concerning the proneness of the midlife and older adults to contracting STIs, 199 (40.8%) agreed that they were prone while 287 (59.2%) disagreed.

#### **DISCUSSION**

Among midlife and older adults, heterosexual contact is the primary mode of exposure (5, 6, 13, 14). The present study found that most of the respondents (62.1%) were aged below sixty years, the majority (83.8%) were married and presum-

ably in a stable heterosexual relationship. This is in the same range as that reported in the United Kingdom [UK] (6). With improving nutrition and medical care these are likely to live into the seventh and eighth decade of life and consequently several will become widowed. The risk of contracting HIV/AIDS becomes even more in this group as they age further (4, 13). Thus, targeting this group with HIV/AIDS education and prevention strategies will further increase longevity and quality of life in old age. This will also reduce the cost of health and the strain on the family resources.

Knowledge is an important component of HIV prevention. The study found that only 40.8% of the older and midlife adults believed there was a high possibility of an adult of their age group getting infected with HIV. This is low when compared with findings elsewhere in Puerto Rico which found that many (69.9%) of the older adults interviewed believed that there was a high possibility (13). Other studies also show a similar trend of more than average awareness of the possibility of older adults being infected (4, 13, 15). Based on the Health Belief Model, this comparatively poor knowledge will lead to risky sexual behaviour with negative consequences on HIV/AIDS control strategies and the health of the individual and community at large (13). There is a high awareness of the risk of HIV transmission among the midlife and older age group with 87.5% of the respondents indicating that if they had unprotected sexual intercourse, they were at high risk for contracting HIV infection. This is similar to findings in Puerto Rico [74.5%], (13) and the United States of America [USA] (15). This rather high awareness may be due to the urban nature of the sampled population with Calabar being a city with early exposure to education with a very literate population. This high awareness must be re-enforced so as to translate it to personal sexual behaviours. This is because despite this awareness of risk, less than half of the respondents believed that their age group was at risk of contacting HIV/AIDS if they engaged in unprotected casual sexual intercourse.

Concerning the mode of transmission of HIV/AIDS, 82.0% were aware that the virus can be transmitted though blood transfusion, contact with body fluids, though kissing (77.5%), sexual intercourse (62.3%) and mother-to-child transmission (45.1%). This is similar to findings by Santos-Ortiz et al in Latin America where knowledge of transmission through sexual relation, needle pricks and needle sharing, contact with body fluids and blood transfusion were found to be 92.8%, 89.5%, 88.8% and 86.9% respectively (13). Despite the high knowledge rate, misconception or myths were still found to be as prevalent with as high as 96.7% of the respondents saying that transmission could be through casual contact like shaking of hands and a few said one could be infected through hugging (2.3%). This finding is in agreement with several studies worldwide (1, 5, 11, 13). Attempts must be made to correct such misconceptions on the transmission of the disease as this hampers control measures. On prevention, the majority (80.7%) of the respondents were aware that sexual abstinence can prevent being infected while 62.3% were aware that the latex condom can also be used as a preventive measure. corroborated in another study in which 75.0% of clients were aware that the condom is a preventive measure that reduces the risk of HIV trans-mission (13). Unfortunately, cultural beliefs and sometimes real life experiences have worked against condom use as a preventive method for HIV/AIDS transmission. Such beliefs include reduced sexual pleasure and satisfaction with con-doms, that condoms cause health problems and hindered sexual interests (2). Education and awareness creation has been documented to be associated with condom use (3, 5) and thus it is necessary to use these strategies to change such perceptions and move older adults and indeed the entire populace towards embracing positive sexual attitude along with condom use.

The television contributed mostly (75.4%) to information about HIV/AIDS prevention through condom use for the respondents. Other sources of information for the respondents were awareness campaigns (45.5%), newspapers (40.4%) and information from friends (38.9%). This is in line with findings elsewhere that many of the respondents identified television as a source of information on HIV/AIDS prevention using the condom (16, 17). The same studies found that the other sources of information on HIV/AIDS were friends and newspapers (16, 17). These sources of information on condom as a preventive method for HIV/AIDS found in the present study, may not reflect the generality of the population and newspapers and televisions are not readily accessible in rural areas and the illiterate may be limited in knowledge acquisition on HIV/AIDS. This segment of the population depends on person-to-person, family, friends and community leadership for information. Besides, even if information is got through other means, this must be crosschecked with the community 'gate keepers' before they can be implemented or tried. Therefore, it becomes important that traditional and community leaders, other identified leaders in the communities, who are the custodians of community values should be involved in awareness creation and mobilization if the condom as a HIV/AIDS prevention strategy is to be accepted by the majority of midlife and older adults.

The study establishes that while there is awareness on HIV/AIDS transmission and prevention among midlife and older adults in the study population, myths and beliefs were still very strong among them. This has the potential to affect the control of HIV/AIDS in this segment of the population. In conclusion, it is important to recognize that middle and older adults are an important segment of the population in relation to HIV/AIDS prevention efforts. Government and organizations that work to control the pandemic must target

this group. Health education and promotion including sexual health activities must be emphasized while eliminating stereotyping, discrimination and disparities in healthcare services to this group must be emphasized. A comprehensive, sensitive approach must be used when developing health services to this group taking into account specific needs of the different age groups. This service must be acceptable and accessible to the target population. Such must include prevention materials like condoms, STI counselling and testing. Academic curriculum and in-service training for health professional targeted at this age group must be put in place. Research among this group must be appropriate and culturally sensitive.

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