

Responses of female non-academic staff of a tertiary institution on reducing HIV/AIDS: a health scheme survey in South-Eastern Nigeria

Osah Martins Onwuka

Department of Human Physiology, Faculty of Basic Medical Sciences, Gregory University, Uturu, Abia State, Nigeria

Abstract

Introduction: Poor knowledge, awareness, and behavioral pattern have been reported to be among the contributing factors of the spread of human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS). This study evaluated knowledge, awareness, and behavioral pattern towards HIV/AIDS of female non-academic staff in a tertiary institution in South-Eastern Nigeria.

Material and methods: This survey was conducted between July and August 2021 in a tertiary institution in Uturu, Abia State, Nigeria through pre-tested questionnaire from 60 female non-academic staff (age range of 18 to 43 years). Data were analyzed using SPSS version 25.0. Frequency distributions of variables were obtained, and χ^2 test was used to assess the association between variables. Statistical significance was determined at $p < 0.05$.

Results: Socio-demographics showed that 68.3% of the cohort were married, and 31.7% were not married. 10%, 61.7%, and 16.7% has attained primary, secondary, and tertiary level of education, respectively, while 10% presented no formal education. Result of the evaluations showed that marital and educational status has significant positive impact on knowledge, awareness, and behavioral pattern towards HIV/AIDS, as married participants showed significantly high percentage of positive responses compared to unmarried. Moreover, females with tertiary education showed significant high percentage of positive responses, followed by those with secondary education when comparing between categories of educational qualification.

Conclusions: The reported evaluations suggests that participants had positive responses on reducing HIV/AIDS, which is commendable to sensitization to a health scheme that would further aid in improving their knowledge, awareness, and altitude, which are the key factors of their responses.

HIV AIDS Rev 2023; 22, 3: 226-230

DOI: <https://doi.org/10.5114/hivar.2023.131588>

Key words: HIV/AIDS, knowledge, awareness, behavioral pattern.

Introduction

Human immunodeficiency virus (HIV) is one of the global public health problem that had claimed 27.2-47.8 million lives. About 30.2-45.1 million people were estimated to have

HIV at the end of 2020, and about 480,000 – 1.0 million died from HIV-related causes, while about 1.0-2.0 million people acquired HIV in 2020 [1]. HIV is transmitted through contacting with infected blood, semen, or vaginal fluids.

Address for correspondence: Osah Martins Onwuka, Department of Human Physiology, Faculty of Basic Medical Sciences, Gregory University, Uturu, Abia State, Nigeria, e-mail: osahmartinz@gmail.com

Article history:
Received: 25.01.2022
Received in revised form: 11.02.2022
Accepted: 17.02.2022
Available online: 15.09.2023

International Journal
of HIV-Related Problems

HIV & AIDS
Review

Table 1. Socio-demographic characteristics of participants

Variables	n (%)
Age range of participants	
18-24	8 (13.3)
25-31	22 (36.7)
32-37	26 (43.3)
38-43	4 (6.7)
Marital status of participants	
Married	41 (68.3)
Single	16 (26.7)
Cohabiting	1 (1.7)
Divorced	1 (1.7)
No response	1 (1.7)
Educational qualification of participants	
Primary	6 (10.0)
Secondary	37 (61.7)
Tertiary	10 (16.7)
Informal	6 (10.0)
No response	1 (1.7)

There is no known cure for HIV/AIDS, but strict adherence to antiretroviral therapy can slow the advancement of the disease [2].

HIV/AIDS interferes with the immune cells and makes the body to become immune-compromised [3]. It destroys immune cells (CD4+ T cells) by binding to CD4 molecule on the helper T cells and replicates within them; this results in declining in the population of T cells, hence leading to AIDS. A CD4+ cell count of 200 cells or less indicates AIDS, since the normal range of CD4+ count is about 500 to 1,500 [4, 5].

Poor behavioral pattern, such as unprotected vaginal or anal sex, sharing contaminated needles/syringes, blood transfusion, tissue transplantation, and medical procedures that involve unsterilized piercing or cutting, increases the risk of HIV/AIDS infection as it predisposes individuals to infected fluids [2, 6]. Poor behavioral pattern towards HIV/AIDS could be as a result of decreased knowledge and awareness of individuals [7, 8]. Health sensitization scheme improving knowledge, awareness, and behavioral pattern towards HIV/AIDS would help in reducing the infection. Hence, this study evaluated knowledge, awareness, and behavioral pattern towards HIV/AIDS of female non-academic staff in a tertiary institution in South-Eastern Nigeria during a health sensitization program.

Material and methods

This study was carried out at the Gregory University Uturu, in Abia State, Nigeria, which is a private university established in 2012 and named after Pope Gregory. The insti-

Table 2. Knowledge, awareness, and behavioral pattern towards HIV/AIDS among participants

Variables	n (%)
Did you know about HIV?	
Yes	58 (96.7)
No	2 (3.3)
If yes to the above, where did you get the information from?	
Hospital	37 (61.7)
NGO	17 (28.3)
Group discussion	2 (3.3)
Media	1 (1.7)
No response	3 (5.0)
Are you aware that HIV is an STI?	
Yes	29 (48.3)
No	31 (51.7)
Are you aware that HIV can be transmitted through sex and sharing of sharp objects?	
Yes	53 (88.3)
No	7 (11.7)
Are you aware that HIV transmission can be prevented through the use of condom, abstinence, etc.?	
Yes	54 (90.0)
No	6 (10.0)
Do you agree that HIV exist?	
Yes	58 (96.7)
No	2 (3.3)
Have you done HIV screening?	
Yes	50 (83.3)
No	10 (16.7)
If yes to the above, where did you do it?	
Hospital	42 (70.0)
Private lab	5 (8.3)
Others (NGO, etc.)	13 (21.7)
Do you check your HIV status regularly (like once in 3 months)?	
Yes	41 (68.3)
No	14 (23.3)
Do you apply any protective measures while having sex?	
Yes	38 (63.3)
No	22 (36.7)

tution has improved tertiary educational level of individuals from South-Eastern and other parts of Nigeria. The Gregory University in Uturu (GUU) has about eight colleges and over thirty departments, with about 650 staffs (academic and non-academic). The present health scheme survey study was conducted between July and August 2021. A pre-tested questionnaire was used to obtain information from selected participants (60 non-academic female staff).

This study was approved by ethics review committee of the Department of Human Physiology of Gregory University Uturu. Prior to collecting data with questionnaires, verbal consent was obtained from all study participants. Objectives and study procedure were explained to each participant, and data confidentiality and anonymity were assured, and participation was voluntary. These were in accordance with the ethics and regulation guide on the use of subjects, approved by the Gregory University, Uturu, Nigeria.

Information regarding socio-demographics, awareness, knowledge, and behavioral pattern in relation to HIV/AIDS were collected and analyzed using SPSS version 25.0. Frequency distributions of variables were obtained, and chi-square test was used to assess for the association between variables. Statistical significance was determined at $p < 0.05$.

Results

Socio-demographics

The socio-economic and demographics profile of the 60 female non-academic staff, with age range of 18 to 43 years, showed that about 68.3% were married and 31.7% were not married. Furthermore, 10%, 61.7%, and 16.7% of the females attained primary, secondary, and tertiary level of education, respectively, while 10% presented no formal education (Table 1).

Knowledge, awareness, and behavioral pattern towards HIV/AIDS among the participants

The results (Table 2) suggested that higher percentage of the participants had good knowledge, and were aware of HIV and AIDS. Also, higher percentage presented good behavioral pattern towards HIV/AIDS.

Knowledge, awareness, and behavioral pattern towards HIV/AIDS among the participants according to marital status

The results (Table 3) showed knowledge, awareness, and behavioral pattern towards HIV/AIDS among the participants with respect to marital status. Chi-square values of each category demonstrated significant difference ($p < 0.05$) when comparing marital status category. Married participants showed highest percentage of positive responses compared to unmarried females.

Knowledge, awareness, and behavioral pattern towards HIV/AIDS among the participants according to educational status

The results showed knowledge, awareness, and behavioral pattern towards HIV/AIDS among the participants according to educational qualification. Chi-square

Table 3. Knowledge, awareness, and behavioral pattern towards HIV/AIDS among participants according to marital status

Variables	Married, n (%)	Single, n (%)	Others, n (%)
Did you know about HIV?			
Yes	39 (65.0)	16 (27.0)	3 (5.0)
No	2 (3.3)	0 (0.0)	0 (0.0)
If yes to the above, where did you get the information?			
Hospital	30 (50.0)	7 (12.0)	0 (0.0)
NGO	7 (11.7)	7 (12.0)	2 (3.3)
Group discussion	1 (1.7)	1 (1.7)	0 (0.0)
Media	0 (0.0)	1 (1.7)	0 (0.0)
No response	1 (1.7)	0 (0.0)	1 (1.7)
Are you aware that HIV is an STI?			
Yes	19 (31.7)	9 (15.0)	0 (0.0)
No	22 (36.7)	7 (12.0)	2 (3.3)
Are you aware that HIV can be transmitted through sex and sharing of sharp objects?			
Yes	34 (56.7)	16 (27.0)	2 (3.3)
No	7 (11.7)	0 (0.0)	0 (0.0)
Are you aware that HIV transmission can be prevented through use of condom, abstinence, etc.?			
Yes	35 (58.3)	16 (27.0)	2 (3.3)
No	6 (10.0)	0 (0.0)	0 (0.0)
Do you agree HIV exist?			
Yes	39 (65.0)	16 (27.0)	2 (3.3)
No	2 (3.3)	0 (0.0)	0 (0.0)
Have you done HIV screening?			
Yes	36 (60.0)	12 (20.0)	2 (3.3)
No	5 (8.3)	4 (6.7)	1 (1.7)
If yes to the above, where did you do it?			
Hospital	30 (50.0)	11 (18.0)	1 (0.0)
Private lab	4 (6.7)	1 (1.7)	0 (0.0)
Others (NGO, etc.)	5 (8.3)	2 (3.3)	1 (1.7)
Do you check your HIV status regularly (like once in 3 months)?			
Yes	30 (50.0)	10 (17.0)	1 (1.7)
No	8 (13.3)	4 (6.7)	1 (1.7)
Do you apply any protective measures while having sex?			
Yes	3 (5.0)	10 (17.0)	2 (3.3)
No	38 (63.3)	6 (10.0)	1 (1.7)

Significant at $p < 0.05$

values of each category demonstrated significant difference ($p < 0.05$) comparing educational qualification of the participants. Females with tertiary education presented highest percentage of positive responses, followed by those with secondary education (Table 4).

Discussion

Socio-demographics of the 60 non-academic female staff (age range of 18 to 43 years) suggests that high proportion of the participants were married. In addition, they presented a high proportion in secondary and tertiary education, which contributed to a high level of knowledge, awareness, and behavioral pattern towards HIV/AIDS seen among the participants. This is because age, marriage,

and educational experiences enhance knowledge, awareness, and behavior [9-11]. This study revealed that married participants showed highest percentage of positive responses compared to unmarried. This could be because most married woman perform unprotected sex for the sake of childbearing and trust their partners. Reports stated that married individuals have high level of good behaviors towards the infection [12, 13]. This study also reported that participants with tertiary education demonstrated highest

Table 4. Knowledge, awareness, and behavioral pattern towards HIV/AIDS among participants according to educational status

Variables	Primary, n (%)	Secondary, n (%)	Tertiary, n (%)	Informal, n (%)
Did you know about HIV?				
Yes	6 (10.0)	36 (60.0)	10 (17.0)	5 (8.3)
No	0 (0.0)	1 (1.7)	0 (0.0)	2 (3.3)
If yes to the above, where did you get the information?				
Hospital	2 (3.3)	24 (40.0)	9 (15.0)	1 (1.7)
NGO	3 (5.0)	10 (16.7)	1 (1.7)	3 (5.0)
Group discussion	1 (1.7)	0 (0.0)	0 (0.0)	1 (1.7)
Media	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.7)
No response	0 (0.0)	2 (3.3)	0 (0.0)	1 (1.7)
Are you aware that HIV is an STI?				
Yes	3 (5.0)	16 (26.7)	7 (12.0)	3 (5.0)
No	3 (5.0)	21 (35.0)	3 (5.0)	3 (5.0)
Are you aware that HIV can be transmitted through sex and sharing of sharp objects?				
Yes	5 (8.3)	34 (56.7)	10 (17.0)	3 (5.0)
No	1 (1.7)	3 (5.0)	0 (0.0)	3 (5.0)
Are you aware that HIV transmission can be prevented through use of condom, abstinence, etc.?				
Yes	6 (10.0)	34 (56.7)	10 (17.0)	3 (5.0)
No	0 (0.0)	3 (5.0)	0 (0.0)	3 (5.0)
Do you agree HIV exist?				
Yes	6 (10.0)	36 (60.0)	10.0 (17.0)	5 (8.3)
No	0 (0.0)	1 (1.7)	0 (0.0)	1 (1.7)
Have you done HIV screening?				
Yes	4 (6.7)	34 (56.7)	10 (17.0)	1 (1.7)
No	2 (3.3)	3 (5.0)	0 (0.0)	5 (8.3)
If yes to the above, where did you do it?				
Hospital	1 (1.7)	29 (48.3)	9 (15.0)	2 (3.3)
Private lab	0 (0.0)	3 (5.0)	0 (0.0)	2 (3.3)
Others (NGO, etc.)	5 (8.3)	5 (8.3)	1 (1.7)	2 (3.3)
Do you check your HIV status regularly (like once in 3 months)?				
Yes	1 (1.7)	25 (41.7)	10 (17.0)	4 (6.7)
No	5 (8.3)	7 (11.7)	0 (0.0)	2 (3.3)
Do you apply any protective measures while having sex?				
Yes	2 (3.3)	10 (16.7)	2 (3.3)	2 (3.3)
No	4 (6.7)	27 (45.0)	8 (13.0)	4 (6.7)

Significant at $p < 0.05$

percentage of positive responses, followed by those with secondary education comparing knowledge, awareness, and behavioral pattern towards HIV/ AIDS among the individuals according to educational qualification. This is as result of education playing a key role in influencing knowledge, awareness, and behavior [8, 14]. The higher the educational level, the more an individual is exposed to information [15].

Conclusions

The finding of the present study suggests that higher proportion of the participants has good knowledge, awareness, and behavioral pattern towards HIV/ AIDS. Marital and educational status of the participants has contributed to high level of positive responses in reducing HIV and AIDS.

Conflict of interest

The author declares no conflict of interest.

References

1. Castle PE, Einstein MH, Sahasrabudde VV. Cervical cancer prevention and control in women living with human immunodeficiency virus. *CA Cancer J Clin* 2021; 71: 505-526.
2. Fitriani RK, Salim, LA. Knowledge of HIV transmission and factors related to the incidence of HIV/AIDS in adolescents in Indonesia. *Indian J Forens Med Toxicol* 2021; 15: 1459. DOI: <https://doi.org/10.37506/ijfmt.v15i1.13618>.
3. Sudharshan S, Menia NK, Selvamuthu P, Tyagi M, Kumarasamy N, Biswas J. Ocular syphilis in patients with human immunodeficiency virus/acquired immunodeficiency syndrome in the era of highly active antiretroviral therapy. *Indian J Ophthalmol* 2020; 68: 1887.
4. Shoko C, Chikobvu D. A superiority of viral load over CD4 cell count when predicting mortality in HIV patients on therapy. *BMC Infect Dis* 2019; 19: 1-10.
5. Khandu L, Dhakal GP, Lhazeen K. Baseline CD4 count and the time interval between the initial HIV infection and diagnosis among PLHIV in Bhutan. *Immun Inflamm Dis* 2021; 9: 883-890.
6. Kabapy AF, Shatat, HZ, Abd El-Wahab EW. Attributes of HIV infection over decades (1982-2018): a systematic review and meta-analysis. *Transbound Emerg Dis* 2020; 67: 2372-2388.
7. Alhasawi A, Grover SB, Sadek A, Ashoor I, Alkhabbaz I, Almasri S. Assessing HIV/AIDS knowledge, awareness, and attitudes among senior high school students in Kuwait. *Med Princ Pract* 2019; 28: 470-476.
8. Iqbal S, Maqsood S, Zafar A, Zakar R, Zakar MZ, Fischer F. Determinants of overall knowledge of and attitudes towards HIV/AIDS transmission among ever-married women in Pakistan: evidence from the Demographic and Health Survey 2012-13. *BMC Public Health* 2019; 19: 1-14.
9. Snelling D, Omariba DWR, Hong S, Georgiades K, Racine Y, Boyle MH. HIV/AIDS knowledge, women's education, epidemic severity and protective sexual behaviour in low-and middle-income countries. *J Biosoc Sci* 2007; 39: 421-442.
10. Sargent-Cox KA, Windsor T, Walker J, Anstey KJ. Health literacy of older drivers and the importance of health experience for self-regulation of driving behaviour. *Accid Anal Prev* 2011; 43: 898-905.
11. Zhu X, Neupert SD. Dynamic awareness of age-related losses predict concurrent and subsequent changes in daily inductive reasoning performance. *Br J Develop Psychol* 2021; 39: 282-298.
12. Jiang GJ, Guo W, Pei YX, Cai C, Wu GH, Zhou C, Chen ZL. Survey on extramarital sexual behaviors and HIV infection in middle-aged and elderly people aged 50 and above in selected areas of Chongqing. *Zhonghua Liu Xing Bing Xue Za Zhi* 2018; 39: 1438-1442.
13. Pandey KR, Yang F, Cagney KA, Smieliauskas F, Meltzer DO, Ruhnke GW. The impact of marital status on health care utilization among Medicare beneficiaries. *Medicine (Baltimore)* 2019; 98: e14871. DOI: 10.1097/MD.00000000000014871.
14. Roy D, Tripathy S, Kar SK, Sharma N, Verma SK, Kaushal V. Study of knowledge, attitude, anxiety & perceived mental health-care need in Indian population during COVID-19 pandemic. *Asian J Psychiatry* 2020; 51: 102083.
15. Ambos B, Leicht-Deobald U, Leinemann A. Understanding the formation of psychic distance perceptions: are country-level or individual-level factors more important? *Int Business Rev* 2019; 28: 660-671.