Original Article

Prevalence of HIV/AIDS Disclosure and Disclosure Patterns Among Young Adults Living with HIV/AIDS in Abuja Municipal Area Council, Nigeria.

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ABSTRACT

HIV/AIDS remains a significant public health challenge globally, with Nigeria carrying a substantial burden, particularly among young adults. Disclosure of HIV status is crucial for accessing care and preventing transmission but often faces stigma and fear. Understanding disclosure patterns among young adults is vital for effective intervention strategies. Therefore, this study examines disclosure patterns among young adults living with HIV/AIDS attending ART clinics, the reasons behind nondisclosure, and the factors associated with HIV status disclosure. Adescriptive cross-sectional study was conducted among young adults (aged 13-35 years) living with HIV/AIDS in Abuja, Nigeria. A sample size of 500 was used and data were collected using semi-structured questionnaires and analyzed using SPSS software. Chi -square was used to determine the factors associated with HIV status disclosure. Sexual transmission was the primary mode of HIV acquisition (90%), with most individuals becoming aware of their status between 21-30 years. Nearly all participants (91.6%) disclosed their status, primarily to parents (94.3%), citing the need for medical support (90.0%). Fear of neglect and stigma (92.7%) were significant barriers to disclosure, with only 5.7% disclosing to spouses. Positive responses (99.4%) were reported post-disclosure, but adverse outcomes included domestic abuse (14.2%) and abandonment (15.5%). Efforts to combat HIV/AIDS should address barriers to disclosure, promote open communication, and encourage timely testing. Interventions should target young adults, emphasizing disclosure to sexual partners, and provide support to mitigate stigma and its consequences. By addressing these challenges, we can enhance HIV/AIDS management and prevention strategies among young adults in Nigeria.

Keywords: Abuja, Disclosure, HIV/AIDS, Young Adults.

INTRODUCTION

Human Immunodeficiency Virus (HIV/AIDS), a disease of global public health concern, has persisted as a formidable challenge for both individuals and healthcare systems for several decades.[1] It persistently impacts physical well-being and socio-economic development, particularly in sub-Saharan Africa.[1] Among the African nations, Nigeria, the most populous, bears a substantial epidemic burden.[2] In a Bayesian predictive modeling study conducted by Onovo et al., it was determined that the estimated HIV prevalence among adults aged 15-49 years in Nigeria is 2.1%, indicating that approximately two million individuals are living with HIV in the country.[3]

While substantial progress has been achieved in HIV

prevention and treatment, which have significantly extended life expectancy in people living with HIV/AIDS, it is crucial to prioritize the physical, mental, and sexual health needs of the increasing population of people living with HIV/AIDS.[4] Disclosing one's HIV status is the initial step towards adopting a variety of preventive and care measures, ultimately enhancing the overall well-being and quality of life for people living with HIV/AIDS (PLWHA) and curbing the onward transmission of HIV.[5]

Disclosure is the independent act of revealing one's status to another person or group.[6] The act of disclosing one's HIV status is a complex and multifaceted process with profound implications for the individual and the wider community. While disclosing one's HIV status is often seen as an essential step in the management of the disease, especially for young adults, it is frequently met with fear, stigma, and discrimination. Moreover, various factors influence the decision of young adults living with HIV/AIDS to disclose their status or keep it hidden. Understanding the prevalence of disclosure and its associated factors is crucial in developing effective strategies to improve the quality of life for this demographic, optimize their access to care, and curb the spread of the virus.

The magnitude of HIV-positive status disclosure in developing countries is lower when compared to developed countries.[7] Studies conducted in various parts of Nigeria revealed that the disclosure rate of HIV status among respondents ranged from 55.9% to 97.5%.[8-12] The person disclosed to varied from spouses or sexual partners to relatives/family members across studies.

While substantial progress has been achieved in HIV prevention and treatment, there still exists a vital area of concern that requires in-depth investigation regarding disclosure. Disclosure can lead to increased social support and access to healthcare, while nondisclosure may result in isolation and missed opportunities for treatment and prevention. In the same light, nondisclosure can cause further disease transmission to relatives and other close contacts. This study will therefore examine disclosure patterns and the reasons behind nondisclosure to contribute to the ongoing efforts to reduce HIV-related stigma, fostering an environment where individuals feel safer and more encouraged to disclose their status without fear of discrimination.

MATERIALS AND METHODS

Study Design, Population, and Area

A descriptive cross-sectional study was carried out at The Federal Medical Centre (FMC) Jabi, located within Abuja Municipal Area Council (AMAC) of the Federal Capital Territory (FCT) of Nigeria. The study focused on young adults living with HIV/AIDS attending ART clinics and presently on ART therapy. Consenting clients receiving treatment for over six months, aged between 13 and 35 years, were eligible to participate, while severely ill patients were excluded. The study was conducted between January 2023 and April 2023.

Sample size determination and sampling technique

The sample size was calculated using the formula for single proportion

$n = Z^2pq/d^2$ where

n = the sample size,

z = standard normal deviate at 95% confidence interval (CI), which is 1.96,

p = prevalence of disclosure in a previous study was 55.9%,[8]

q = 1-p,

d = precision level set at 5%.

The calculated sample size was increased to 500 respondents. Sampling was done using systematic random sampling. A total of 1937 clients were on ART in FMC, Jabi. The eligible participants were selected by systematic sampling technique using the list of clients accessing services in FMC Jabi to constitute the sampling frame.

Data Collection and Analysis

Data was collected using a pretested semi-structured interviewer-administered questionnaire and analyzed using IBM Statistical Package for the Social Sciences (SPSS) version 22.0 software. The

questionnaire consisted of three sections: sociodemographic characteristics, history/clinical status, and pattern of disclosure. A pretest was conducted to check for any ambiguity in the instrument's use and familiarize research assistants with the instrument. Four research assistants were trained for data collection. Quantitative variables were summarized using mean and standard deviation, while qualitative variables were summarized using frequency and percentage. Frequency distribution tables were constructed, and cross-tabulations were done to examine the relationship between categorical variables. The chi-square test was used to determine the factors associated with HIV status disclosure. The level of significance was set at $p < 0.05$.

Ethical consideration

Ethical clearance was obtained from the Research and Ethics Committee of Ladoke Akintola University of Technology, Ogbomoso, Oyo state. Permission to conduct the study was obtained from the management of FMC Jabi. Informed written consent was obtained from the participants above 18 years after explaining the purpose of the study and assurance of confidentiality, while assent was obtained from those below 18 years.

RESULTS

Sociodemographic Characteristics of Respondents

The average age of those surveyed was 29 years, with a standard deviation of 5.6. More than half of the participants (266, 53.2%) fell within the 31- to 35-year age range. The majority of respondents were female (403, 80.6%), identified as Christians (263, 52.6%), had attained tertiary-level education (284, 56.8%), and reported that they could cover their expenses with a little surplus. Slightly more than half of the respondents (253, 51.6%) had an income of less than 50,000 naira, and 64% (320) were single. (Table 1)

Patient history and clinical status

The majority of respondents (450, 90%) indicated that they contracted the virus through sexual transmission, while 4.2%, (n=21) were uncertain about the mode of virus acquisition. Approximately half of the respondents (255, 51%) became aware of their HIV status between the ages of 25 and 30, with the average age of awareness being 25 years and a standard deviation of 5.8. Among the respondents, 10.8%, (n=54) reported having a relative who had succumbed to the disease, and 66.7%, (n=36) had at least one affected relative. The most commonly prescribed HIV regimen among the respondents was dolutegravir/lamivudine/tenofovir(TDF-3TC-DTG) (477, 95.4%), and 77.4%, (n=387) had been receiving treatment at the center for more than two years. Most respondents (448, 89.6%) described their health status as excellent. (Table 2)

Respondents' Pattern of Disclosure

Regarding the revelation of HIV status, 91.6%, (n=458) of the participants indicated that they had shared their HIV status with someone other than medical personnel. Among them, 94.3%, (n=432) disclosed their status to their parents, while 5.7%, (n=26) revealed it to their spouses. The primary motive for disclosure, as identified by a significant majority (412, 90.0%) of the respondents, was to garner medical support from their families. Additionally, 6.1%, (n=28) mentioned disclosing to encourage family members or spouses to undergo testing, and 3.1%, (n=14) disclosed to protect others.

For those who chose not to disclose their status, 92.9%, (n=39) cited neglect and stigmatization, 83.3%, (n=35) mentioned the challenge of accepting their HIV status, 64.3%, (n=27) expressed fear of the potential loss of their spouses or family, and 50%, (n=21) stated that they were ashamed of their HIV status. A noteworthy 75.3%, (n=345) of respondents disclosed their status within 24 hours of diagnosis, with 12.9%, (n=59) and 7.4%, (n=34) declaring within the first month and 1–6 months of diagnosis, respectively. A smaller proportion (20, 4.4%) disclosed their status within 6–12 months of diagnosis.

Almost unanimously, respondents reported positive outcomes following disclosures, with 99.4% (n=455) acknowledging a positive response from those they disclosed to. Furthermore, an overwhelming 97.6% (n=447) expressed confidence

in future disclosures. (Table 3)

Negative consequences of disclosure experienced by respondents

About the adverse repercussions reported by respondents following the disclosure of their HIV status, 14.2% (n=65) and 15.5% (n=78) of the participants had encountered domestic abuse and abandonment, respectively. Additionally, 8.3% (n=38) and 8.7% (n=40) of the respondents had experienced discrimination and rejection by sexual partners as unfavorable outcomes of revealing their HIV status. However, a substantial majority, consisting of 94.1%, (n=431) disagreed with the notion that disclosing one's HIV status could result in job loss. (Table 4)

Association between sociodemographic, person disclosed to and disclosure rate.

A statistically significant association was observed between the disclosure rate and factors such as age, level of education, monthly income, and overall situation, as indicated in Table 5. Additionally, a statistically significant association was found between marital status, monthly income, and the person to whom the disclosure was made. (Table 6)

Table 1: Sociodemographic Characteristics of Respondents

Variable	Frequency	Percentage
Age (years)		
≤ 18	41	8.2
19 – 24	35	7.0
25 – 30	158	31.6
31 – 35	266	53.2
Mean ± SD	29 ± 5.6	
Sex		
Male	97	19.4
Female	403	80.6
Religion		
Christianity	263	52.6
Islam	237	47.4
Ethnicity		
Hausa	84	16.8
Igbo	96	19.2
Yoruba	99	19.8
Others	221	44.2
Marital Status		
Single	320	64.0
Married	178	36.0
Widowed	2	0.4
Level of Education		
No formal Education	17	3.4
Prim ary	68	13.6
Secondary	131	26.2
Tertiary	284	56.8
Monthly income		
No income	16	3.2
< 10,000	6	1.2
10,000 – 24,999	34	6.8
25,000 – 45,999	197	39.4
≥ 50,000	247	49.4
Overall Situation		
Don't meet basic needs	19	3.9
Just meet basic needs	67	13.8
Meet needs with a little left	366	75.6
Live comfortably	32	6.6

Table 2: Patient History and Clinical Status

Variable	Frequency	Percentage
Route through which respondents got infected		
Pre-natal/Birth	22	4.4
Sexual transmission	450	90.0
Blood transfusion/medical procedures	7	1.4
I don't know	21	4.2
Age at the discovery of Infection		
≤ 18	52	10.4
19 – 24	143	28.6
25 – 30	255	51.0
31 – 35	50	10.0
Mean ± SD	25± 5.8	
Have relatives who died of HIV/AIDS		
Yes	54	10.8
No	446	89.2
Number of relatives who died from HIV/AIDS		
1	36	66.7
Two or more	16	29.6
Don't know	2	3.7
Present regimen of HIV Drugs		
TDF-3TC-ATV/r	7	1.4
TDF-3TC-DTG	477	95.4
TDF-3TC-LPV/r	6	1.2
ABC-3TC-DTG	8	1.6
AZT-3TC-LPV/r	2	0.4
Length of use of the services at the center		
1– 2 years	113	22.6
> 2 years	387	77.4
Self-report of health status		
Poor	15	3.0
Fair	10	2.0
Good	27	5.4
Excellent	448	89.6

Table 3: Respondents Pattern of Disclosure

Variable	Frequency	Percentage
Disclosure of status		
Yes	458	91.6
No	42	8.4
Person disclosed to		
Spouse	26	5.7
Parents	432	94.3
Reason for nondisclosure*		
I felt ashamed about being HIV positive	21	50.0
Fear of losing my partner and family	27	64.3
It wasn't easy accepting my status	35	83.3
Neglect and stigmatization	39	92.9
Reason for Disclosure		
Emotional Support	4	0.9
Medical Support	412	90.0
Desire to protect others	14	3.1
To encourage others to get tested	28	6.1
Time of Disclosure		
Within 24 hours of diagnosis	345	75.3
In the first month of diagnosis	59	12.9
Within the $2^{nd}- 6^{th}$ month of diagnosis	34	7.4
Within 6 – 12 months of diagnosis	20	4.4
Type of response received after disclosure		
Positive	455	99.4
Negative	3	0.6
The respondent feels confident about the next disclosure.		
Yes	447	97.6
No	11	2.4

Table 4: Negative consequences of disclosure experienced by respondents

Responses	Yes	No
Domestic Abuse	65 (14.2)	393 (85.8)
Abandonment	78 (15.5)	380 (84.5)
Discrimination	38 (8.3)	420 (91.7)
Rejection by sexual partners	40 (8.7)	418 (91.3)
Rejection by friends	60 (13.1)	398 (86.9)
Loss of job	27 (5.9)	431 (94.1)

Table 5: Association between sociodemographic and prevalence of disclosure

Variable	Prevalence of Disclosure		χ^2	p-value
	Yes	**No**		
Age (years)				
< 24	45 (59.2)	31(40.8)	122.2	< 0.0001
≥ 25	413 (97.4)	11 (2.6)		
Sex				
Male	89 (91.8)	8 (3.2)	0.0036	0.9520
Female	369 (91.6)	34 (8.4)		
Marital Status			0.3987	0.5277
Never Married	295 (92.2)	25 (7.8)		
Ever Married	163 (90.6)	17 (9.4)		
Level of Education			11.3808	0.0001
Primary and below	70 (82.4)	15 (17.6)		
Secondary and above	388 (93.5)	27 (6.5)		
Monthly income				
< 10,000	6 (27.3)	16 (72.7)	126.9764	< 0.0001
10,000 – 49,999	213 (92.2)	18 (7.8)		
≥ 50,000	239 (96.8)	8 (3.2)		
Overall Situation				
Below Average	74 (86.0)	12 (14.0)	10.8182	0.001
Above average	380 (95.5)	18 (4.5)		

Table 6: Association between sociodemographic and description of who respondents disclosed to

Variable	Description of who the respondent disclosed to		χ^2	p-value
	Spouse (%)	Parents (%)		
Age (years)			1.2135	0.2706
< 24	1	44		
≥ 25	26	387		
Sex			0.2339	0.6287
Male	6	83		
Female	20	349		
Marital Status			16.8985	0.00039
Never Married	7 (2.4)	288 (97.6)		
Ever Married	19 (11.7)	144 (88.3)		
Level of Education			0.0002	0.9883
Primary and below	4	66		
Secondary and above	22	366		
Monthly income			7.3278	0.0232
< 10,000	1	5		
10,000 – 49,999	6	207		
≥ 50,000	20	219		
Overall Situation			4.834	0.184
Don't meet basic needs	0	19		
Just meet basic needs	4	51		
Meet needs with a little left	18	332		
Live comfortab ly	4	26		
Overall Situation			0.189	0.6638
Below Average	4	70		
Above average	26	358		

DISCUSSION

Based on the findings of this study, it is evident that HIV continues to impact a diverse population, and various factors play a role in disclosure decisions and their subsequent effects on individuals. The age distribution reveals a significant proportion of individuals affected by HIV falling within the 31-35 age group. This demographic is crucial for targeted prevention and care interventions, given that they are in their prime years and can benefit from timely diagnosis and treatment. Furthermore, a substantial number of respondents were females, emphasizing the importance of gender-sensitive HIV programs.

The discovery that sexual transmission is the predominant means of acquiring HIV infection in our study underscores the significance of sexual health education and prevention efforts, especially among young adults. The mean age of discovering HIV status at 25 years in our study emphasizes the need for early testing and diagnosis.

Our study indicates a disclosure rate of 92%, with most respondents choosing to disclose to their parents. This aligns with earlier reports from a study conducted in South-south Nigeria, where over 90% of People Living with HIV (PLHIV) had disclosed their HIV status,[11] but it is lower than findings from a study conducted in the National Hospital, Abuja.[12]

In our study, a significant proportion of respondents (88% married, 98% unmarried) disclosed their HIV status to their parents rather than spouses or sexual partners. This finding is consistent with a study in Kampala, Uganda,[13] which reported a higher disclosure to parents and relatives. In contrast, a study in Sokoto, Nigeria,[8] found that spouses/sexual partners ranked highest among those disclosed to. The low level of disclosure to spouses or sexual partners in our study (5.7%) is worrisome, as nondisclosure to partners can have serious consequences, risking partner infection and hindering efforts to combat HIV/AIDS, given that sexual transmission is the primary route.

Our study revealed variations in the timing of HIV status disclosure, ranging from within the first 24 hours to one year. Three-quarters of respondents in our study disclosed their status within 24 hours of knowing it. Similar variations were observed in North-central and South-south Nigeria studies, where disclosure timing ranged from immediate to years.[11,12] The most common reason for nondisclosure in our study was fear of neglect and stigmatization, along with difficulty accepting one's status, fear of losing a partner or family, and the

shame of being HIV positive. These reasons echo findings from various studies across Nigeria.[9,11,13] The primary reason for disclosure in our study was for medical support, differing from a previous study where expectations of care and emotional support were the main drivers.[9] Almost all respondents had a positive response after disclosure, with a significant percentage willing to inform the next individual. This positive response and respondents' confidence in future disclosures are encouraging indicators of the potential for strengthening support systems and reducing the stigma associated with HIV. However, challenges related to nondisclosure, such as feelings of shame and fear, persist. Addressing these emotional barriers is essential to facilitate open communication about HIV status.

Our study identified a significant association between age, education, income, overall situation, and HIV disclosure status. Individuals aged 25 and above were more likely to disclose their status than those under 25. Those with secondary education and higher degrees were more likely to disclose their status than those with lower education levels. This finding is consistent with a study conducted in Southwest Ethiopia[14] where individuals with higher education were more likely to disclose their HIV status than those with primary education or those who were illiterate. However, it contrasts with the findings of Gaskin's study, which reported that individuals with tertiary education were less likely to disclose their HIV status.[15]

CONCLUSION

The fight against HIV/AIDS is still ongoing. Although the prevalence of disclosure was high, disclosure was mainly to parents, even though transmission was mainly through sexual intercourse. There is a need to intensify the importance of disclosing to one's sexual partner or spouse. In addition. by addressing the unique needs and challenges of different demographic groups and promoting timely testing, education, and support, we can work towards better outcomes in the fight against HIV and AIDS.

Recommendations

The study recommends implementing comprehensive sexual health education programs tailored for young adults to increase awareness of HIV transmission and the importance of timely testing. Additionally, it suggests providing tailored counseling services focusing on coping mechanisms and stigma reduction for individuals living with HIV/AIDS. Family-centered support systems should be encouraged by educating parents and relatives about HIV/AIDS and fostering open communication within families. Integrating mental health services into HIV/AIDS care and engaging communities in advocacy efforts to combat stigma are also recommended.

Limitations

Several limitations were identified in the study, including potential sampling bias due to reliance on clients from a specific healthcare facility, which may limit the generalizability of findings. Social desirability bias could have influenced self-reported data, and the cross-sectional design prevented the establishment of causal relationships between variables. Additionally, recall bias may have affected the accuracy of reported information, and ethical considerations, such as confidentiality breaches, could have arisen despite obtaining ethical clearance and informed consent.

Acknowledgement

Conflict of Interest

We hereby declare that there is no conflict of interest in performing or reporting this research.

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