

BARRIERS AND FACILITATORS TO HUMAN IMMUNODEFICIENCY VIRUS SERO-STATUS DISCLOSURE IN A TERTIARY HEALTH FACILITY IN KANO, NIGERIA

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ABSTRACT

Background: Disclosure of Human Immunodeficiency Virus (HIV) sero-status to sexual partners, family and friends is essential in preventing HIV transmission. An array of benefits has been associated with disclosure; such as early referral to care and treatment, reduced stigma and increased social support. **Objectives:** We determined the prevalence, barriers and facilitators to HIV sero-status disclosure among clients attending the Antiretroviral (ARV) clinic in Aminu-Kano-Teaching Hospital, Kano. **Method:** A descriptive cross-sectional study was conducted among 231 HIV positive patients attending ARV clinic at AKTH using a systematic sampling technique. Interviewer-administered semi-structured questionnaire was used to obtain respondent's socio-demographic characteristics, disclosure status, barriers and facilitators of HIV sero-status disclosure. We conducted univariate, bivariate and multivariate analysis using SPSS version 22, and a p-value ≤ 0.05 was considered as the level of significance. **Results:** The mean age of the respondents was 35 ± 8.64 years with a male to female sex distribution of 53% to 47 % respectively. Majority were not married (74.0%) and two thirds (67%) were Muslims. This study found that 60% of the respondents had disclosed their HIV sero-status and 97% of them had done so voluntarily. The fear of divorce/neglect ($p < 0.01$, aOR=0.017, 95% CI=0.02-0.15) and fear of stigma ($p < 0.01$, aOR=0.03, 95% CI= 0.00-0.03) were found as barriers to HIV sero-status disclosure. Financial difficulties ($p < 0.01$, aOR=3.03, 95% CI=1.16-5.61) and the need for improved access to necessary medical care ($p=0.04$, aOR=6.52, 95% CI=1.85-23.15) were found to facilitate HIV sero status disclosure. **Conclusion:** The study found a low HIV sero-status disclosure in Kano. Disclosure being major recommendation by World Health Organisation and the Centres for Disease Control and Prevention requires strengthening during patients counselling and education sessions.

Key words: Disclosure, HIV/AIDS, Barriers, Facilitators

INTRODUCTION

HIV/AIDS is a public health problem that requires intensive efforts to continuously strengthen the national responses for prevention, treatment, care and support. Despite several interventions for HIV/AIDS in Nigeria, the country still has a large number of people living with the disease.¹ In 2018, it was estimated that approximately 1,900,000 people were living with HIV in Nigeria.² The Centres for Disease Control and Prevention (CDC) emphasised

Access this article online

Quick Access Code

WEBSITE: www.kjmsmedicaljournal.com

DOI: 10.36020/kjms.2019.1301.006

HIV disclosure as a fundamental prevention strategy in their protocols for HIV testing and counselling.³ Voluntary Counselling and Testing (VCT) is comprised of pre-test counselling, testing, post-test counselling, and disclosure counselling. Disclosure is added as a fourth element due to the public health benefits of such strategy in prevention of HIV transmission.

Disclosure to family members can actively facilitate HIV testing for other family members, and eventually link them to care.⁴ Between couples, disclosure of sero-status gives partners the chance to take better life style decisions such as engaging in preventive behaviours, accessing necessary healthcare and social support. Additionally, disclosure is associated with improved management of HIV and its complications such as depression and better adherence to Anti Retro viral Therapy (ART).⁶ Among women of child bearing age, sero-status disclosure is linked to better reproductive health choices and psychosocial support; this has been shown to facilitate utilisation of Prevention of Mother To Child Transmission (PMTCT) services.⁷ Disclosure is however, a very complicated process and may be associated with negative outcomes such as the fear of being accused of promiscuity or infidelity or being victimised or discriminated against.⁸ Other factors known to hinder disclosure were the fear of abandonment, losing financial and emotional support and even divorce.⁹ The study aimed to determine the disclosure rate, barriers and facilitators to HIV sero status disclosure among patients attending the HIV clinic in a tertiary health facility in Kano State, Nigeria.

MATERIALS AND METHOD

Study design: The design was a descriptive cross-sectional study.

Study Population: HIV positive patients (18years and above) attending the ARV clinic at AKTH.

Sample Size Determination:

The minimum sample size for the study was calculated using the Fischer's Formula for estimating minimum sample size.

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

Where:

n= minimum sample size

z= Value of the standard normal deviate equivalent to 95% confidence level = 1.96

p= Prevalence of 83.7% for HIV Status disclosure among HIV Positive Pregnant Women in Lagos, Southwest Nigeria.

q= Complimentary probability, q= 1-p (16.3%)

d= Degree of precision of 5% = 0.05

Substituting these values in the formula;

$$n = \frac{(1.96)^2 \times 0.83.7 \times (1-0.83.7)}{(0.05)^2}$$

$$= 209.5 = 210$$

To account for non-response 10% of the sample size was added to the minimum sample size and rounded up to 231.

Sampling Technique:

Systematic sampling technique was used to select respondents. Sample size and sampling frame (weekly patients' attendance at the ART Clinic which is 450 from the 2018 attendance record) was used to determine sampling fraction. Thus, the sampling fraction was obtained using sample size and sampling frame.

Sampling fraction = Sample size/Sample frame = 231/450 = 0.51

Sampling interval = 1/Sample fraction = 1/0.51 = 2

The reciprocal of the sampling fraction yields a sampling interval of 2; hence every second patient attending the clinic was interviewed.

Simple random sampling (Balloting) was used to determine the starting point and every 2nd patient was then selected.

Study Instrument

An interviewer – administered, pre-tested, semi-structured questionnaire was adapted from a previous study.¹¹

Data Analysis

Data collected were cleaned, entered into excel sheet and then analysed using IBM SPSS version 22. Variables obtained included (socio-demographic data of the respondents, prevalence of disclosure, patterns of disclosure, barriers and facilitators of HIV sero-status disclosure). Chi-square test or the Fisher's exact test (where appropriate) was used to analyse factors associated with disclosure and a p 0.05 was considered statistically significant. At multivariable level, binary logistic regression model was used to obtain adjusted odds ratio with 95% confidence interval for barriers and facilitators of HIV sero status disclosure.

RESULTS

Table 1: Socio-Demographic Characteristics of Respondents

Variables	Frequency (n=231)	Percentage (%)
Gender		
Male	122	52.8
Female	109	47.2
Age (Mean \pm SD)	35 \pm 8.64	
Age Group		
18-24	17	7.4
25-34	104	45.0
35-44	70	30.3
45-54	36	15.6
55 - above	4	1.7
Marital Status		
Single	105	45.5
Married	60	26.0
Divorced	46	19.9
Widowed	15	19.9
Separated	5	2.2
Ethnic Group		
Hausa	140	60.6
Fulani	23	10.0
Igbo	26	11.3
Yoruba	31	13.4
Others	11	4.8
Family Setting		
Monogamous	64	61.0
Polygamous	41	39.0
Occupation		
Civil Servants	69	29.8
Farmers	10	4.30
Trader	52	22.5
Artisan	24	10.4
Unemployed	39	16.9
Others	37	16.0
Educational Status		
Primary	45	19.5
Secondary	78	33.8
Tertiary	99	42.5
None	9	3.90

The age of the patients ranged from 18-55 years with mean age (\pm SD) of 35 \pm 8.64 years. The most represented age group was 25-34(45%). The male to female sex distribution was 53% to 47% respectively. Almost two thirds of the respondents were Hausa and majority (75%) were un-married (single, divorced, widowed or separated). Over a quarter (30%) of the respondents were civil servants. (Table 1).

Table 2: HIV Sero-Status Disclosure among Respondents

Variable	Frequency (n=231)	Percentage (%)
Disclosure		
Yes	139	60.2
No	92	39.8

Up to 60.2% (139) of the respondents had disclosed their HIV sero-status and most often (97%) disclosure was voluntary (Table 2).

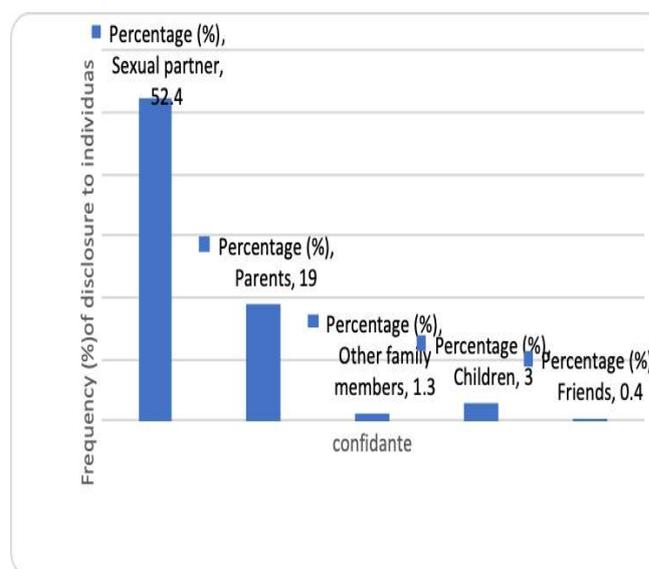


Table 3: Barriers to HIV sero status disclosure (Bivariate analysis)

Variable	Disclosure		χ^2	p-value
	Yes (%)	No (%)		
Feared Stigma				
Yes	65(98.5)	1(1.5)		
No	138(86.3)	27(16.4)	132.6	<0.01 *
Feared Divorce/Neglect				
Yes	138(99.3)	26(28.3)		
No	1(0.7)	66(71.7)	40.7	<0.01 *
Accused of Promiscuity				
Yes	1(0.7)	27(29.3)		
No	138(99.3)	65(70.7)	545	<0.01 *
Disgrace				
Yes	1(0.7)	27(29.3)		
No	138(99.3)	65(70.7)	42.6	<0.01 *

* Statistically significant

All the test variables: fear of being stigmatised, the fear of being divorced or neglected by a partner, the fear of being accused of promiscuity or fear of being considered a disgrace) were found to be associated with sero-status disclosure (Table 3)

Table 3: Facilitators to HIV Sero-Status Disclosure (Bivariate analysis)

Variable	Disclosure		²	p-value
	Yes (%)	No (%)		
Social/Emotional Support				
Yes	84(60.4)	5(5.4)	70.7	<0.01 *
No	55(39.6)	87(94.6)		
Relationship				
Yes	78(56.1)	3(3.3)	67.9	<0.01 *
No	61(43.9)	89(96.7)		
Financial difficulties				
Yes	59(42.4)	18(19.6)	13.0	<0.01 *
No	80(57.6)	74(80.4)		
Access to care				
Yes	70(50.4)	4(4.3)	53.8	<0.01 *
No	69(49.6)	88(95.7)		
Risk of transmission				
Yes	76(55.1)	4(4.3)	44.4	<0.01 *
No	62(44.9)	88(95.7)		
HIV testing and counselling				
Yes	91(60.3)	60(39.7)	75.9	<0.01 *
No	1(1.2)	79(98.8)		
Feared Death				
Yes	89(42.6)	121(57.4)	8.72	<0.01 *
No	2(9.5)	19(90.5)		

* Statistically significant

At the bivariate level of analysis; Chi-square test found the need for social/emotional support, committing to a relationship, the need to have improved access to care, the need to reduce the risk of transmission, the fear of death and the need to enable partner to have access to HIV testing and counselling as significant facilitators to disclosing HIV sero-status (Table 3).

Table 4: Barriers to HIV Sero-Status Disclosure (Multivariate Analysis)

Variable	95% Confidence Interval	aOR	p-value
Feared divorce/neglect			
No (Reference)		1	
Yes	0.02 - 0.15	0.02	<0.01*
Feared Stigma			
No (Reference)		1	
Yes	0.00 - 0.03	0.03	<0.01*
Feared promiscuity			
No (Reference)		1	
Yes	0.42 - 50.4	4.59	0.21
Feared being considered a disgrace			
No (Reference)		1	
Yes	0.29-140.3	6.03	0.26

*Statistically Significant

Using a multivariable model to control for potential confounders, the fear of neglect and the fear of stigma were barriers found with decreased odds of HIV sero-status disclosure (Table 4).

Table 5: Facilitators to HIV sero status disclosure (Multivariate Analysis)

Variable	95% Confidence Interval	aOR	p-value
Financial difficulties			
No (Reference)		1	
Yes	1.16 – 5.61	3.03	0.01*
Access to medical care			
No (Reference)			
Yes	1.85 – 23.15	6.25	0.04*
Social and emotional			
No (Reference)		1	
Yes	0.22 – 3.21	0.84	0.79
Relationship			
No (Reference)		1	
Yes	0.32 – 8.5	8.52	0.56
Reduce risk			
No (Reference)		1	
Yes	0.55- 9.22	2.26	0.26
Feared Death			
No (Reference)		1	
Yes	0.04-6.07	0.50	0.59

***Statistically Significant**

Having financial difficulties and the need for improved access to necessary medical care, were significant facilitators with increased odds of HIV sero-status disclosure (Table 5).

DISCUSSION

This study found that 60.2% of the respondents had disclosed their HIV sero-status, and disclosure was most frequently to a sexual partner (52.4%). This study finding is comparable to a study in South-south Nigeria that obtained a disclosure rate of 62%,¹² slightly lower than the value obtained in a pooled estimate of HIV disclosure rates among pregnant women in sub-Saharan Africa (67.0%).¹³ Appreciably higher rates were reported for HIV sero-status disclosure studies conducted in Jos (89%),¹⁴ and Bida, Northern Nigeria (87.0%).¹⁵ Studies across African countries reported variable rates of disclosure; Ethiopia (94.5%), Uganda (83.3%) and 79.1% in South Africa.^{16,9,17} Our study found proportionately higher number of respondents that were either single, divorced, widowed or separated, and could perhaps explain the lower disclosure rate obtained from this study. In Nigeria, studies have found non-disclosure to be significantly associated with being single ($p=0.026$).^{5,18} In support of the association of disclosure with marital status, another study revealed that married respondents confessed they had often disclosed their status due to that sense of responsibility they had towards their spouses.¹⁹

This study also found that being afraid of divorce, neglect and the fear of stigma had decreased the likelihood of respondents disclosing their HIV sero status to partner, family or friends. It is very common across regions to have anxiety about disclosure, because there is that fear of rejection or discrimination. Anxiety has been stated as the main driver in decisions of non-disclosure.²⁰ The fear of being stigmatised is also a major concern for people living with HIV and its often associated with evading disclosure of HIV sero-status. Some studies also reported similar responses among HIV positive patients for non-disclosure.^{18,12,19}

Our study sought for factors that will facilitate disclosure among the respondents. It found that the need for improved access to necessary medical care and having financial difficulties increased the likelihood of the respondents disclosing their status

to others. These results are comparable to the common reasons for disclosure or non-disclosure found in several studies.^{18,12,22,17,19} Being diagnosed with HIV requires continuous management and patients will need regular follow up visits, which may include regular physical examinations, medical tests and drugs for opportunistic infections. These processes will incur some additional expenditure. There may also be the need to refer patients with some complications to a higher level of care, and in such situations, they may require a treatment support partner as well as additional funds, this can all necessitate the disclosure of one's status.

Bringing to light that less than two thirds of the respondents had disclosed their HIV status is unacceptably low even in comparison to majority of studies in Nigeria and across several Nations and this has major implications. We can infer that several patients are denying themselves the numerous benefits associated with disclosure that can lead to a better quality of life for patients with this chronic disease. None the less, we should anticipate higher disclosure rates with the decreased funding by global donors in Nigeria towards HIV prevention, research and development. The Nigerian government need to take ownership of the HIV/AIDS programmes within the country as funding by the United States of America and other major donors to HIV/AIDS programmes in Africa is on a steady decline.²³ Patients now have to pay for certain investigations and drugs that were initially shouldered by funding partners. These difficulties may emerge for many of the patients as an advantage that may drive them towards disclosure.

This study falls short in eliciting the timeliness of disclosure especially among couples or those who currently had a sexual partner; this is required to put emphasis on the benefits of early disclosure for risk reduction. Other limitations also include self reported disclosure and a qualitative data gap that may explore other reasons for non-disclosure. Despite these limitations, this study provides useful information about disclosure rates and reasons for disclosure/non-disclosure

Conclusion: The study found a low HIV sero-status disclosure in Kano. Disclosure being a major recommendation by World Health Organisation and the Centre's for Disease Control and Prevention requires strengthening during patients counselling

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Cite this article as: Ibrahim RJ, Kwaku AA, Suleiman H, Tsiga-Ahmed FI, Amole TG, Ibrahim UM, Yahaya KI, Abdulkarim AM., Barriers And Facilitators to Human Immunodeficiency Virus Sero-status Disclosure In a Tertiary Health Facility In Kano, Nigeria
KJMS 2020; 14(1): 31 - 38.
