Types and predictors of partner reactions to HIV status disclosure among HIV-infected adult Nigerians in a tertiary hospital in the Niger Delta

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Abstract

Background and objective: Our aim was to describe the types and determinants of partner reactions to HIV-status disclosure among adults attending an antiretroviral therapy-(ART) clinic in the Bayelsa State, Nigeria

Methods: A cross-sectional study was undertaken between January and March 2013 among consecutive adult patients who had disclosed their HIV-status to their current sexual partner. Sociodemograhic data and types of initial and subsequent partner reactions to disclosure were obtained using interviewer- administered standardized-questionnaire. Independent determinants of reactions to disclosure were ascertained by unconditional logistic regression.

Results: Out of 123 study participants, 57.7% were females, 92% were receiving ART and 86.1% were currently married. Majority of the participants reported predominant positive or supportive initial (72.4%) and subsequent (89.5%) partner reactions to disclosure, with significant increase in positive reactions over time. Positive initial partner reactions were independently associated with prior post- test counselling-(Odds ratio [OR]-6.5, 95% Confidence interval [CI]-1.3-31.6-p=0.02), age>35years-(OR-5.8, 95% CI-1.6-20.9-p=0.008) and being healthy at time of disclosure-(OR-7.8, 95% CI-1.7-35.4-p=0.008). Subsequent positive partner reactions were significantly associated with receiving antiretroviral therapy and having only one lifetime sexual partner.

Conclusion: Our results indicate that partner reactions to HIV-status disclosure are predominantly supportive. Disclosure counselling and early initiation of ART may be effective in improving HIV-status disclosure in Nigeria.

Keywords: HIV-disclosure, sexual partners, disclosure reactions, Counselling, antiretroviral therapy, Nigeria.

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Introduction

Disclosure of HIV status to one's sexual partner is known to promote HIV testing, encourage HIV risk reduction, increase opportunity for social support and ultimately facilitate long term plans to ensure HIV prevention and management.[1] Unfortunately, disclosure is not without its challenges and risks. The stigma and discrimination associated with HIV infection as made the process of disclosure of HIV status complicated for many, with fear of eliciting a negative reaction from the their partner being the major source of concern.[12] Failure to disclose has been attributed to fear of abandonment, broken relationships, physical and emotional abuse, discrimination and loss of economic support.[2]

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Despite these disclosure-related fears, studies from both developed and developing countries[2–7], Nigeria inclusive[8–13], have revealed predominant positive or supportive reactions to disclosure, with 50-100% of sexual partners eliciting positive reactions following disclosure. The few reports of negative reactions such as disruption of relationships, violence and discrimination were more commonly reported among unmarried sexual partners and sero-discordant couples, as well as among people from low economic status and in those with history of violence in their relationships.[2,3] Perhaps due to varying socioeconomic status, studies conducted in developing countries generally reported higher rates of negative partner reaction than those from developed countries.[3]

Many aspects of the determinants of reactions to status disclosure to sexual partners remain undefined in developing countries, including Nigeria. In Nigeria, existing studies on partner reactions to HIV status disclosure were conducted solely among pregnant women attending antenatal clinic without highlighting the determinants of positive or negative reactions to disclosure.[8–13] In this study we assessed the pattern and determinants of reactions to HIV disclosure to sexual partners among adult HIV-infected adult patients attending an anti-retroviral clinic in Bayelsa State, Nigeria. This is the first of such studies from our centre and to our knowledge, the first study from Nigeria evaluating the variables associated with partner reactions to HIV-disclosure.

Materials and methods

This cross sectional study was undertaken over three months (January –March 2013) in Niger Delta University Teaching Hospital (NDUTH), Okolobiri, Bayelsa State, Nigeria. Nigeria has a HIV seroprevalence of 4.1% and about 3.2 million people are living with HIV with Nigeria.[14] Bayelsa state has a HIV seroprevalence of 9.1 %, ranking third in Nigeria among 36 states and the Federal Capital Territory with highest HIV seroprevalence.[14]

The NDUTH is a 170 bed tertiary hospital situated in Okolobiri, a semi-urban city in the Bayelsa State, Nigeria providing healthcare services to the population at least four states in the Niger Delta Region of Nigeria. The antiretroviral clinic of the NDUTH is a major referral clinic for HIV/AIDS services in the region, providing comprehensive HIV care and treatment to about 5000 registered HIV-infected patients, including children and pregnant women.

Ethical approval for the study was obtained from the NDUTH ethical review board. Within the study duration, we enrolled consecutive HIV-infected non-pregnant adult clients who reported HIV status disclosure to their current and main sexual partner. Three trained interviewers administered a structured standardized pre-tested questionnaire to collect demographic data, clinical history, disclosure reactions, and other social and sexual history of all study participants. In the next paragraph, we define various study variables, including questions listed in our study questionnaire.

Current sexual partner was defined as 'someone you had sexual intercourse with in the last 6 months preceding the study'. Patients who admitted having multiple sexual partners in the preceding 6months were asked to identify their main sexual partner. Main sexual partner was defined as 'a sexual partner that you consider to be serious about with regard to establishing a long term relationship'. History of pre-test and post-test HIV counselling, number of life time sexual partners and duration of current sexual relationships were ascertained. The HIV status of the sexual partner (i.e. positive, negative or unknown) was also documented. Study participants were asked 'Did you have any symptom of illness at the time you disclosed your HIV status to your sexual partner'. For the purpose of this study, those that answered 'Yes' were classified being 'Sick' at the time of disclosure, while those that answered 'No' were classified as 'Healthy'.

Study participants were also asked to indicate the initial and subsequent reactions of their sexual partners to HIV status disclosure. Initial reaction was defined as partner reactions the first time HIV status was disclosed while subsequent reaction was defined as the most recent (last one month) partner reaction to prior disclosure. Study participants who had sexual relationships of less than one month or who had not seen their current sexual partner in the last one month were exempted from responding to the question on subsequent partner reactions to disclosure.

Positive reactions to disclosure were defined as partners being supportive, understanding or kind. Partner reactions such as being sad or unhappy, violence (physical assault), being quarrelsome or abusive and break up in relationship were classified as negative. Partners who gave indifferent reactions (defined as showing lack of interest or concern) to disclosure were also classified as negative. All study participants gave consent for the study and confidentiality was assured in data collection. Results of pre-testing ensured that definitions were well understood, practicable and reliable.

The data was analysed using Statistical Package of Social Sciences (SPSS) version[20]. Descriptive statistics were used to summarise the various types of partner reactions and other study variables. The dependent or explanatory variables associated with partner reactions were ascertained using Chi square. Multivariate unconditional logistic regression analysis was used to determine variables independently associated with initial partner reactions to disclosure. Explanatory

variables that were associated with the outcome variable in bivariate analyses and other possible confounding variables found to be associated with partner reactions to disclosure in other studies were included in the logistic model. The variables included in the model were sex (Male or Female), age group (18-35years or >35years), marital status (currently or not currently married) and HIV-status of partner (positive or negative). Others were lifetime number of sexual partners (1partner or >1partner), duration of current relationship (≤1year or >1year), history of HIV post-test counselling (yes or no), and state of health at time of disclosure (healthy or sick). P<0.05 was taken as statistically significant for analysis.

Results

Demographic data

A total of 123 study participants were enrolled in the study (response rate of 79.9%), out of which 57.7% were females, 92% were receiving ART and 86.1% were currently married. The median age and inter-quartile range (IQR) of the study population was 36 years (32, 40). Fifty (40%) of the 123 study participants had sero-concordant sexual partners (i.e. HIV-positive partners), out of which 40 (80%) were receiving ART. Details of the socio-demographic data of the study participants are summarised in table 1 below.

Table1:Socio-Demographic CharacteristicsofStudyParticipants

Variable	Description
Age (Median and IQR)	36years (32,40)
Age group (N/%)	
≤35years	53 (49.1%)
>35years	55 (50.9%)
Gender (N/%)	
Male	52 (42.3%)
Female	71 (57.7%)
Marital status (N/%)	
Not currently married	17 (13.9%)
Currently married	105 (86.1%)
Household status (N/%)	
Living with partner	91 (74%)
Not living with partner	32 (26%)
ART status (N/%)	
Receiving ART	113 (91.9%)
Not receiving ART	10 (8.1%)
Health status at time of disclosure (N/%)	
Healthy	42 (35%)
Sick	78 (65%)
HIV status of sexual partner	
Positive	50 (40.7%)
Negative	54 (43.9%)
Unknown	19 (15.4%)
Duration of current sexual relationship (N/%)	
≤1year	17 (14.9%)
>1year	97 (85.1%)
Number of lifetime sexual partners	
1 partner	80 (69%)
>1partner	36 (31%)
History of HIV pre-test counselling (N/%)	
Yes	94 (76.4%)
No	29 (23.6%)
History of HIV post-test counselling (N/%)	
Yes	107 (88.4%)
No	14 (11.6%)

Key: IQR-inter-quartile range, N-number, %-percentage, ART-antiretroviral therapy

Reactions to disclosure

Out of the 123 study participants, 89(72.4%) reported positive initial partner reactions to disclosure while 34 (27.6%) reported negative initial partner reactions. The negative initial partner reactions included feeling sad/ unhappy (n=14), indifference (n=11), Quarrelsome/ abusive partner (n=7), and break up of marriage (n=2). Out of 98 participants who gave responses on subsequent reactions to disclosure, 85 (89.5%) reported positive partner reactions to disclosure as compared to 13 (10.5%) who reported negative partner reactions.

The negative subsequent partner reactions to disclosure included indifference (n=5), quarrelsome/verbal abusive partner (n=3), feeling sad/unhappy (n=3), and break up of marriage (n=1). No case of violence (physical assault) was reported among our study participants. There was an increase in the reported positive reactions overtime with significant association between initial and subsequent partner reactions to disclosure. Sixty four (98.5%) of 65 patients who initially reported a positive initial, also reported a positive subsequent partner reaction, while 21 (70%) of the 30 patients who initially reported a negative partner reaction, reported a positive subsequent partner reaction. These differences were statistical significant (P<0.0001, X2=17.7, df=1, Chi Square).

Determinants of reactions to disclosure

The relationships between initial and subsequent partner reactions to disclosure and study variables are shown in table 2 and 3.

Table2:Relationship between initial partner reactions to disclosureand study variables

Variables	Positive initial reactions N(%)	Negative initial reactions	P value
Age group			
≤35years	38 (71.7%)	15 (28.3%)	0.31
>35years	44 (80%)	11 (20%)	
Gender			
Male	36 (69.2%)	16 (30.8%)	0.51
Female	53 (74.6%)	18 (25.4%)	
Marital status			
Not currently married	16(94.1%)	1 (5.9%)	0.026
Currently married	73 (69.5%)	32 (30.5%)	Fisher's test
Household status			
Living with partner	68(74.7%)	23 (25.3%)	0.32
Not living with partner	21 (65.6%)	11 (34.4%)	
ART status			
Receiving ART	82 (72.6%)	31 (27.4%)	0.86
Not receiving ART	7 (70%)	3 (30%)	
Health status at time of disclosure			
Healthy	36(85.7%)	6 (14.3%)	0.012
Sick	50 (64.1%)	28 (35.9%)	X^2=6.28
HIV status of sexual partner			
Positive	35 (70%)	15 (30%)	
Negativ	38 (70.4%)	16 (29.6%)	0.45
e	16 (84.2%)	3 (15.8%)	
Duration of current sexual relationship			
≤1year	13 (76.5%)	4 (23.5%)	0.65
	69 (71.1%)	28 (28.9%)	
Number of lifetime sexual partners			
1 partner	62 (77.5%)	18 (22.5%)	0.016
>1partner	20 (55.6%)	16 (44.4%)	X^2=5.77
History of HIV pre-test counselling			
Yes	69 (73.4%)	25 (26.6%)	0.64
No	20 (69%)	9 (31%)	
History of HIV post-test counselling			
Yes	81 (75.7%)	9 (31%)	0.01
No	6 (42.9%)	26 (24.3%)	X^2=6.61

Key: N-number, %-percentage, ART-antiretroviral therapy

Table 3: Relationship between subsequent partner reactions to disclosure and study variables

Variables	Positive subsequent reactions N (%)	Negative subsequent reactions	P value
Age group			
≤35years	34 (87.2%)	5 (12.8%)	0.197
>35years	40 (95.2%)	2 (4.8%)	
Gender			
Male	36 (92.3%)	3 (7.7%)	0.45
Female	49 (87.5%)	7 (12.5%)	
Marital status			
Not currently married	10 (90.9%)	1 (9.1%)	0.86
Currently married	74 (89.2%)	9 (10.8%)	
Household status			
Living with partner	60 (87%)	9 (13%)	0.19
Not living with partner	25 (96.2%)	1 (3.8%)	
ART status			
Receiving ART	81 (93.1%)	6 (6.9%)	<0.0001 Fisher's exact test
Not receiving ART	4 (50%)	4 (50%)	
Health status at time of disclosure			
Healthy	26 (92.9%)	2 (7.1%)	0.46
Sick	57 (87.7%)	8 (12.3%)	
HIV status of sexual partner			
Positive	37 (90.2%)	4 (9.8%)	0.92
Negative	37 (88.1%)	5 (11.9%)	
Unknown	11 (91.7%)	1 (8.3%)	
Duration of current sexual relationship			
≤1year	11 (84.6%)	2 (15.4%)	0.47
>1year	71 (91%)	7 (9%)	
Number of lifetime sexual partners			
1 partner	55 (96.5%)	2 (3.5%)	0.005 Fisher's exact test
>1partner	26 (76.5%)	8 (23.5%)	
History of HIV pre-test counselling			
Yes	59 (89.4%)	7 (10.6%)	0.97
No	26 (89.7%)	3 (10.3%)	
History of HIV post-test counselling			
Yes	73 (91.2%)	7 (10.6%)	0.16
No	11 (78.6%)	3 (21.4%)	

On bi-variate analysis, positive initial partner reaction to disclosure was significantly associated with prior post-test counselling, being currently unmarried, having one lifetime sexual partner and being healthy at the time of disclosure. Other variables were not significantly associated with initial reactions to disclosure. On multivariate analysis (table 4), initial positive or supportive partner reaction was independently associated with age group>35years (OR-5.8), prior history of post-test counselling (OR-6.5), and being healthy at time of disclosure (OR-7.8).

Table 4: Multi-varaite analysis of independent predictors of initial partner reactions to HIV status disclosure

Variables	Adjusted OR (95% CI)	P value for Adjusted OR
Age group		
>35years	5.8 (1.6-20.9)	0.008
≥35yrs	1	
Gender		
Female	3.5 (0.96-12.5)	0.06
Male	1	
Health status		
Healthy	7.8 (1.7-35.4)	0.008
Sick	1	
Marital status		
Not currently married	10.6 (0.8-143.7)	0.08
Currently married	1	
HIV status of partner		
Partner Positive	1.2 (0.3-4.0)	>0.05
Partner Negative/Unknown	1	
Prior Post-test counselling		
Yes	6.5 (1.3-31.6)	0.02
No	1	
Duration of sexual relationship		
≤1year	1.2 (0.14-10.3)	
>1year	1	0.82
Number of lifetime sexual partners		
1 partner		
2 or more partners	2.6 (0.8-8.6)	0.12
	1	

NB: OR-odds ratio, CI-confidence interval

Receiving ART and number of sexual partners were the only variables significantly associated with subsequent partner reaction to disclosure. Patients receiving ART were significantly more likely to report a positive or supportive subsequent partner reaction than those who are ART naive (OR=13.5, 95% CI 2.7-67.9, p=0.002). Patients with one lifetime sexual partner were significantly more likely to report positive or supportive subsequent partner reactions than those who had two or more lifetime sexual partners (OR=8.5, 95% CI 1.7-42.7, p=0.005). The very small sample size of participants who reported subsequent partner reaction precluded a multivariate analysis for possible confounders.

Discussion

The results of our study revealed predominant positive partner reactions to HIV status disclosure among clinic attendees of an antiretroviral treatment centre in the Niger Delta region of Nigeria. About 73% of our study

participants reported a supportive or understanding initial partner reaction to disclosure. Although there are differences in study population, this high rate of supportive reactions to disclosure is similar to other studies among pregnant women in Jos[13] and Enugu[9] States in Nigeria where 90% and 63% of the women respectively reported supportive partner reactions to disclosure. Other comparable studies conducted in Burkina Faso, Tanzania, Kenya, Ethiopia and United States of America also reported predominant supportive partner reactions of 62-92%.[2–6,15] It is also noteworthy that our results reveal an increase in supportive partner reactions overtime, with majority of partners who initially reported negative initial partner reaction subsequently reporting positive partner reactions. This subsequent change from negative to positive partner reactions may be used as a counselling strategy to allay fears and concerns of patients who initially experience negative partner reactions following disclosure. In contrast to our finding, Sagay et al[13] reported an increase in negative partner reactions to disclosure overtime among HIV- infected pregnant women in Jos, North-Central, Nigeria.

The contrasting findings may be related to differences in study population since we studied both male and female patients whereas the previous study was done among pregnant women alone. Studies indicate that pregnant women have lower HIV status disclosure rates than non-pregnant women diagnosed by voluntary HIV counselling and testing.[3] Since HIV counselling and testing (HCT) during antenatal attendance is not necessarily voluntary, it has been suggested that pregnant women and their partners may be less prepared to accept a positive HIV test result than their counterpart who had voluntary HCT.[2,3] It will be interesting for future studies to investigate if similar reasons can promote more frequent negative partner reactions to disclosure in pregnant women as compared to non-pregnant women and men.

Many studies have revealed that only a few patients experience negative outcome following disclosure, with a lack of correlation between anticipated and actual negative outcome following disclosure of HIV status[2,3] In agreement, we found only few cases of negative partner reactions to disclosure with indifferent, feeling sad or unhappy and quarrelsome or abusive partners being the commonest and break up in marriage occurring rarely. Like a few other studies from South-eastern Nigeria[11] and South-West Ethiopia[15], there was no reported case of violence following disclosure among our study participants. In contrast, violent reactions to disclosure were reported in 1% of pregnant women in Jos, Nigeria[13] and in 3.5% to 14.6% of women from different developing countries.[3]

The independent determinants of positive or supportive initial partner reaction to disclosure in our study were being older than 35 years of age, having a prior HIV post-test counselling and being healthy at the time of disclosure. In agreement with our results, a meta-analysis of health and demographic correlates of stigma towards people living with HIV by Logie and Gadalla revealed that experiences of high stigma was positively correlated with symptoms of AIDS and negatively correlated with good physical health and age.[16]

Consequently, healthy HIV-infected patients are generally less likely to elicit a negative outcome from others due to disclosure or knowledge of their HIV status. Emotional adjustments and learning from bad news are known to increase with age.[17] Perhaps, our patients and their sexual partners had comparable age ranges and those above 35years of age were more able to adjust to the bad news of HIV disclosure than those aged 35years or below. In another survey on perspectives and expectations on breaking bad news however, it was rather opined that young people are able to withstand bad news better than older individuals.[18]

Counselling on disclosure of HIV status remains an essential component of post-test HIV counselling as recommended by the World Health Organisation.[19] The outcome of disclosure may be reasonably influenced by disclosure skills.[19,20] When properly skilled on disclosure, HIV- infected patients may succeed in disclosing to their sexual partners in a manner that may promote positive responses such as understanding and support.[20] It is not surprising, therefore, that we reported prior HIV post-test counselling as an independent predictor of positive or supportive partner reaction to disclosure. During HCT, physicians, health counsellors and relevant stakeholders ought to encourage and implement 'beneficial disclosure' as recommended by the WHO.[20]

Beneficial disclosure is a form of disclosure that is guided by ethical imperatives in order to maximise the potential outcomes to those infected as well as those affected by HIV/AIDS.[20] The WHO also recommends couple counselling as an effective strategy to promote comprehensive HIV prevention and treatment among sexual partners as well as to prevent partner-related stigma and discrimination [21]

Our study data suggest that after a period following disclosure, patients receiving ART and those with only one lifetime sexual partner were more likely to experience positive partner reactions than those who were yet to start ART and those who had multiple sexual partners. It is believed that reactions of support to disclosure are more likely where HIV-positive individuals are not seen as responsible for getting HIV, whereas those seen as having been infected because of their own behaviour may face negative reactions.[1] Perhaps, this reason may partly account for the higher rates of subsequent negative partner reactions among our study participants with lifetime multiple sexual partners as compared to those with one lifetime sexual partner, since multiple sexual partners is a recognised risk factor for HIV-infection. Antiretroviral drugs improve general well-being and physical health of HIV-infected patients and the use of ART is known to reduce HIV-related stigma.[22] In one study, stigma and discrimination was eliminated after initiating of ART with some participants reporting about friends and families "returning to them" and "apologizing for abandoning" them once they started "looking well."[23]

In studies conducted mainly in developed countries, negative outcome to disclosure was commonest among unmarried sexual partners, sero-discordant couples, and patients with low economic status, especially Africa Americans.[2,4] In contrast to these findings, we did not find any significant association between most of these variables and outcome of disclosure among our study participants. Perhaps, this is due to the fact that majority of the previous studies focused on violence as a negative outcome for disclosure whereas we did not report any case of violence.

Our study is not without limitations. First, since we relied on the judgement of our patients for diagnosis of disclosure reactions, and these judgements may be subject to observation or reporting bias. Second, our study population was not sufficiently large and there were some variables with missing data due to non-response in some questions. These shortcomings might have obscured significant associations that might have been evident with larger sample size and might limit generalisation of our study findings. Third, we did not assess some other possible confounding variables of partner outcome to disclosure such as socio-economic status[2,3], spirituality and religiosity[24] and socio-cultural dispositions to HIV-related stigma and discrimination.[25] Future studies are recommended to explore the effects of these variables, if any, on partner reactions to disclosure.

Conclusion and Recommendation

Partner reactions to HIV status disclosure among adult HIV-infected patients attending an antiretroviral clinic in the Niger Delta Region of Nigeria are predominantly positive or supportive. We recommend strengthening of HIV counselling services in Nigeria and other developing countries to improve disclosure skills as well as couple counselling to reduce partner- related stigma and discrimination. Early introduction of ART with the aim of improving general wellbeing and physical health of HIV-infected patients may also help to mitigate the stigma and discrimination association with HIV-status disclosure.

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