Gender based barriers affecting partner notification among HIV positive clients assessing care and treatment services in Imo State, Nigeria

**ABSTRACT**

This study hopes to provide evidence to inform gender integration in the scale up of Partner Notification Services for HIV positive clients in Imo State Nigeria. Partner notification or disclosure otherwise contact tracing is defined as a voluntary process whereby a trained provider asks people diagnosed with HIV about their sexual partners and/or drug injecting partners and then, if the HIV-positive client agrees, offers these partners HIV Testing Services. The study was conducted in 4 comprehensive ART sites in Imo State, Nigeria across 4 local government areas. The state is located in South Eastern part of Nigeria. A cross-sectional survey among index clients in the State was done Pre-tested, interviewer administered semi-structured questionnaire was used. Consenting index clients were recruited consecutively for the study. Data was analyzed using IBM statistical package for social science (SPSS) version 20. Chi-square test was used to ascertain associations of Characteristics of clients with Gender-barriers in Index Clients ay level of significance of ≤ 0.05. This study showed that majority were positive on overall perception (about 95%) as well as component Gender-based Barriers to HIV (>75%). Some of them include; fear of violence, fear of stigmatization, fear of loss of relationship or income and cultural norms that frown on having multiple sexual partners. Gender inequalities, including gender-based and intimate partner violence, exacerbate women and girls’ physiological vulnerability to HIV and block their access to HIV services. HIV is not only driven by gender inequality, but it also entrenches gender inequality, leaving women more vulnerable to its impact.

Keywords: gender inequality, AIDS, HIV, Highly Active Antiretroviral Therapy

**INTRODUCTION**

According to the UNAIDS Global AIDS Update, there are an estimated 36.7 million people living with HIV, 54% of whom are not accessing life-saving treatment.1 Effective approaches to HIV testing are needed to reach undiagnosed people and link them to HIV care and treatment. As part of the UNAIDS 90-90-90 goals, 90% of HIV-infected individuals will know their HIV status by the year 2020. However, few HIV testing approaches are highly effective in reaching undiagnosed HIV-infected people.1 Research has shown that persons who present late in the course of their HIV disease have significant short-term mortality. Therefore, early diagnosis of HIV infection is a critical gateway to appropriate Highly Active Antiretroviral Therapy (HAART) provision and effective prevention. It also provides enormous personal and public health benefits.

Partner notification or disclosure otherwise contact tracing is defined as a voluntary process whereby a trained provider asks people diagnosed with HIV about their sexual partners and/or drug injecting partners and then, if the HIV-positive client agrees, offers these partners HIV Testing Services (HTS).2 Partner notification is provided using passive or assisted approaches. The essence of partner notification is to provide early diagnosis and treatment for the partners of infected individuals. It aims at reducing onward transmission, preventing consequences of undiagnosed infections, and providing an opportunity to discuss safer sexual behavior with sexual partners.2

Worldwide, HTS uptake and coverage for men continues to be lower than that for women.3 Nearly 70% of adult HIV tests reported in 76 low and middle-income countries in 2014 were conducted for women. Global reporting suggests that this is because HIV testing has been successfully integrated into reproductive health services including antenatal care, but not consistently into other relevant clinic settings. Also, male partner testing is not widely implemented or where offered, uptake is still low.3 As of June 2014, only half of 58 low and middle-income countries surveyed had policies supporting couples HTS.4 Of these countries, a few reported couples HTS rates over 20% in antenatal care settings while more than did not have policies offering partner testing in other settings.4

Nigeria has over 3 million people living with HIV, with heterosexual transmission accounting for over 80% of all HIV infection in the country. Most of the infections happen in stable relationships, yet a large proportion of HIV infected persons in the country do not know their infection status. For those that know their status, disclosure rates are low.5 Partner testing services, including partner notification, for people diagnosed with HIV have not been routinely offered or implemented, therefore, uptake and coverage remains low.6 Fear of rejection or abandonment, especially by partner, is commonly cited as the main reason why HIV-positive individuals avoid partner notification.7,8 Inability to trace a partner, especially casual partners, is also associated with failure to disclose.3 Apprehension on the consequences of disclosure often cause hesitancy and delayed disclosure. This constitutes a major barrier to engaging in preventive behavior.9 Effective partner notification programmes can help increase disclosure to sexual partners and encourage HIV testing among the sexual partners of those infected with HIV.10

A study reported on men and women’s experiences with disclosure of HIV status in Nigeria.11 As partner notification for HTS is scaled up in Nigeria, gender and sex-related dimensions must be considered in implementation strategies, in order for partner notification and referral to HTS programs to achieve maximum impact.11 The benefits will include mutual support to access prevention, treatment and care services.12,13 Equally, it will lead to improved adherence, retention in treatment and prevention of mother-to-child transmission of HIV.12,13 Partner notification and testing will also allow those in sero-discordant partnerships to prioritize effective HIV prevention, such as the use of condoms, immediate Highly Active Antiretroviral Therapy (HAART), medication adherence by HIV-positive partners and pre-exposure prophylaxis (PrEP) for HIV-negative partners.12,13

The aim of this study is to ascertain the success of men and women in referring their sexual partners to HIV Testing Services, identify best practices for Partner Notification Services, assess the barriers and experiences arising for index clients and their partners during the process of partner notification This study hopes to provide evidence to inform gender integration in the scale up of Partner Notification Services for HIV positive clients in Imo State Nigeria.

**METHODOLOGY:**

The study was conducted in 4 comprehensive ART sites in Imo State, Nigeria across 4 local government areas. The state is located in South Eastern part of Nigeria. They are of Igbo tribe. A cross-sectional survey among index clients in the State was done Pre-tested, interviewer administered semi-structured questionnaire was used. Information was collected on the socio-demographic characteristics of respondents, barriers to partner notification and support needed for partner notification. The sample size was calculated using 95% confidence level, 5% error limit and prevalence of 50%. A total of 384 clients were calculated, however 516 clients were studied. Consenting index clients were recruited consecutively for the study. Data was analyzed using IBM statistical package for social science (SPSS) version 20. Chi-square test was used to ascertain associations of Characteristics of clients with Gender-barriers in Index Clients ay level of significance of ≤ 0.05. Ethical approval was sought from appropriate body. Permission was sought from the State Ministry of Health and head of individual facilities. Written informed consent was obtained from each study participants. Participants were assured of the confidentiality and participation was voluntary.

**RESULTS**

**Table 1: Characteristics of clients**

|  |  |  |
| --- | --- | --- |
| **Variables** | **Frequency (n = 516)** | **Percent (%)** |
| **Age cat(years)** |  |  |
| 30 and below | 120 | 23.3 |
| 31-40 | 164 | 31.8 |
| 41-50 | 131 | 25.4 |
| >50 | 101 | 19.6 |
|  **Mean(SD)** | 40.4(11.8) |  |
|  |  |  |
| **Sex** |  |  |
| Male | 177 | 34.3 |
| Female | 339 | 65.7 |
|  |  |  |
| **Educational level** |  |  |
| Primary and below | 120 | 23.3 |
| Secondary | 303 | 58.7 |
| Tertiary | 93 | 18.0 |
|  |  |  |
| **Religion** |  |  |
| Christainity | 507 | 98.3 |
| Islam | 9 | 1.7 |
|  |  |  |
| **Occupation** |  |  |
| Civil/Public servant | 108 | 20.9 |
| Trading | 191 | 37.0 |
| Skilled manual Labour | 145 | 28.1 |
| Unemployed | 72 | 14.0 |

Table 1 shows that majority of respondents were aged 31- 40 years 164(31.8%) with their mean age 40.4. yearsand Standard Deviation of 11,8 years. Males were higher in proportion 339(65.7%), had secondary education 303(58.7%), were Christians 507(98.3%).and traders 191(37.0%).

**Table 2: Characteristics of respondents continued**

|  |  |  |
| --- | --- | --- |
|  | **Frequency**  | **Percent (%)** |
| **Marital status** |  |  |
| Single | 119 | 23.1 |
| Married | 326 | 63.2 |
| Others | 71 | 13.8 |
|  |  |  |
| **If married, status n = 326** |  |  |
| Currently married and living with spouse | 273 | 52.9 |
| Currently married but living with other sexual partner | 14 | 2.7 |
| Currently married but not living married but not living with spouse or any other sexual partner | 39 | 7.6 |
|  |  |  |
| **If not married, status n = 126**  |  |  |
| Regular casual partner | 28 | 22.2 |
| Infrequent casual partner | 24 | 19.0 |
| Sex worker | 4 | 3.2 |
| Boy friend/girl friend | 60 | 47.6 |
| Others | 10 | 7.9 |
|  |  |  |
|  |  |  |
| **Spouse Educational level n = 445** |  |  |
| Primary and below | 122 | 23.6 |
| Secondary | 222 | 43.0 |
| Tertiary | 101 | 19.6 |
|  |  |  |
| **Spouse Occupation n = 445** |  |  |
| Civil/Public servant | 77 | 14.9 |
| Trading | 138 | 26.7 |
| Skilled manual Labour | 77 | 14.9 |
| Unemployed | 224 | 43.4 |

Table 2 shows that respondents were predominantly married 326(63.2%), currently married and living with spouse 273(52.9%) and of those not married, 60(47.6%) were Boy friend/girl friend and 28(22.2%).having regular casual partner. Majority of their spouse had secondary education 222(43.0%) and were unemployed 224(43.4%).

**Table 3: Partner Notification Counseling on HIV**

|  |  |  |
| --- | --- | --- |
|  | **Frequency (n =516)** | **Percent (%)** |
| **Ever been counseled on partner notification and/or sexual network testing**  |  |  |
| Yes | 461 | 89.3 |
| No | 55 | 10.7 |
|  |  |  |
| **Agree to partner notification** |  |  |
| Yes | 347 | 67.2 |
| No | 137 | 26.6 |
| Undecided | 32 | 6.2 |
|  |  |  |
| **Number of partners did you elicit** | **n = 506** |  |
| 0 | 200 | 38.8 |
| 1 | 286 | 55.4 |
| ≥ 2 | 20 | 3.9 |
|  |  |  |
| **Preferred method of partner notification** | **n = 345** |  |
| Passive or self | 213 | 61.7 |
| Provider – assisted | 103 | 29.9 |
| Contract | 22 | 6.4 |
| Household referral | 7 | 2.0 |
|  |  |  |
| **Your partner(s) ever tested before** | **n = 514** |  |
| Yes | 263 | 51.2 |
| No | 98 | 19.1 |
| Not sure | 153 | 29.8 |
|  |  |  |
| **Your partner HIV positive** | **n = 516** |  |
| Yes | 145 | 28.1 |
| No | 182 | 35.3 |
| Not sure | 189 | 36.6 |
|  |  |  |
| **Your partner link to HIV care and treatment** | **n = 145** |  |
| Yes | 141 | 97.2 |
| No | 4 | 2.8 |

Table 3 shows that 461(89.3%) have been counseled on partner notification and/or sexual network testing and 347(67.2%) agreed to partner notification. Also 286(55.4%) have elicited one partner and 213(41.3%) preferred passive or self method of partner notification. Majority, 263(51.0%) have their partner(s) tested before, 145(28.1%) of their partner tested positive for HIV and 141(27.3%) have their partner linked to HIV care and treatment.

**Table 4: Perception on Gender-based Barriers on HIV Partner Notification and/or sexual network testing**

|  |  |  |
| --- | --- | --- |
| **Variables** | **Negative** | **Positive** |
|  | **Freq(%)** | **Freq(%)** |
| Inadequate counselor skills in partner notification | 260(53.0) | 231(47.0) |
| Time too short after diagnosis for client-provider trust building for successful partner elicitation | 113 (23.8) | 361(76.2) |
| Gender norms of acceptability of multiple partners for men but not for women | 47(10.0) | 424(90.0) |
| Fear of violence | 36(7.5) | 443(92.5) |
| Fear of stigmatization | 15(3.5) | 411(96.5) |
| Fear of loss of relationship or income | 33(6.8) | 454(93.2) |
| Bad end or long duration of separation as a barrier | 46(10.0) | 414(90.0) |
| Absence of symptoms as a barrier | 60(12.7) | 414(87.3) |
| Type of relationship as a barrier | 35(7.3) | 445(92.7) |
| Duration of relationship as a barrier | 41(8.6) | 438(91.4) |
| Language used in notifying partner as a barrier (prefer to use other infections instead of HIV) | 72(15.0) | 408(85.0) |
| Partner residence outside LGA of testing | 68(14.4) | 405(85.6) |
| Insufficient contact information available | 56(11.8) | 418(88.2) |
| Casual partner with unknown address and/or cell phone number | 40(8.6) | 424(91.4) |
| Married index clients often lists only their legal partners | 33(7.0) | 440(93.0) |
| Absence of specific policy supporting sexual network testing | 63(14.1) | 383(85.9) |
| Cultural norms that frown on having multiple sexual partners | 23(4.8) | 456(95.2) |
|  |  |  |
| ***Overall Perception on Gender-based Barriers*** |  |  |
| ***Positive*** | ***489*** | ***94.8*** |
| ***Negative*** | ***27*** | ***5.2*** |

Table 4 shows that higher proportion 489(94.8%) have positive perception on Gender-based Barriers on HIV Partner Notification. Majority had been positive for the component perceived Gender-based Barriers (>70%). Four hundred and forty three (88.4%) were positive for fear of violence, 411(96.5%) fear of stigmatization, 454(93.2%) for fear of loss of relationship or income, 456(95.2%) for cultural norms that frown on having multiple sexual partners and 440(93.0%) that Married index clients often lists only their legal partners.

**Table 5: Associations of Characteristics with overall Perception on Gender-barriers**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variables | **Positive** | **Negative** | *χ2* test | **p value** |
|  | **Freq(%)** | **Freq(%)** |  |  |
| **Age cat(years)** |  |  |  |  |
| 30 and below | 110(91.7) | 10(8.3) |  |  |
| 31-40 |  156(95.1) | 8(4.9) | 3.523 | 0.318 |
| 41-50 | 125(95.4) | 6(4.6) |  |  |
| >50 | 98(97.0) | 3(3.0) |  |  |
|  |  |  |  |  |
| **Sex** |  |  |  |  |
| Male | 168(94.9) | 9(5.1) | 0.012 | 0.913 |
| Female | 321(94.7) | 18(5.3) |  |  |
|  |  |  |  |  |
| **Educational level** |  |  |  |  |
| Primary and below | 117(97.5) | 3(2.5) |  |  |
| Secondary | 283(93.4) | 20(6.6) | 3.113 | 0.211 |
| Tertiary | 89(95.7) | 4(4.3) |  |  |
|  |  |  |  |  |
| **Religion** |  |  |  |  |
| Christianity | 480(94.7) | 27(5.3) | FT | 0.614 |
| Islam | 9(100.0) | 0(0.0) |  |  |
|  |  |  |  |  |
| **Occupation** |  |  |  |  |
| Civil/Public servant | 104(96.3) | 4(3.7) |  |  |
| Trading | 181(94.8) | 10(5.2) | 3.786 | 0.285 |
| Skilled manual Labour | 139(95.9) | 6(4.1) |  |  |
| Unemployed | 65(90.3) | 7(9.7) |  |  |
|  |  |  |  |  |
| **Marital status** |  |  |  |  |
| Single | 111(93.3) | 8(6.7) |  |  |
| Married | 307(94.2) | 19(5.8) | 4.686 | 0.096 |
| Others | 71(100.0) | 0(0.0) |  |  |
|  |  |  |  |  |
| **Spouse Educational level**  |  |  |  |  |
| Primary and below | 112(91.8) | 10(8.2) |  |  |
| Secondary | 214(96.4) | 8(3.6) | 3.557 | 0.163 |
| Tertiary | 94(93.1) | 7(6.9) |  |  |
|  |  |  |  |  |
| **Spouse Occupation**  |  |  |  |  |
| Civil/Public servant | 73(94.8) | 4(5.2) |  |  |
| Trading | 130(94.2) | 8(5.8) | 1.773 | 0.621 |
| Skilled manual Labour | 71(92.2) | 6(7.8) |  |  |
| Unemployed | 215(96.0) | 9(7.8) |  |  |

Table 5 shows that there were no statistical significant associations of overall Perception on Gender-barriers with;age (χ2 = 3.523; p = 0.318), Sex (χ2 = 0.012; p = 0.913), educational level (χ2 = 3.113; p = 0.211), Religion (FT; p = 0.614), Occupation (χ2 = 3.786; p = 0.285), marital status (χ2 = 4.686; p = 0.096), spouse educational level (χ2 = 3.557; p = 0.163) and spouse Occupation (χ2 = 1.773; p = 0.621).

**DISCUSSION**

This study shows that a very high proportion of participants have been counseled on partner notification and/or sexual network testing as well as agreed to partner notification. Also, over two third of participants have elicited at least one partner and preferred passive or self method of partner notification. This is good and encouraging bearing in mind the aim of Partner notification which is to find and treat undiagnosed, often asymptomatic HIV infection. Partner notification is a targeted case-finding that helps in early diagnosis and treatment, reduction of HIV transmission, prevention of STI sequaele and provision of opportunity to discuss safer sex. It is an important part of the public health management of HIV. 2 The index case informs their own sexual partners of the need for tests and/or treatment. Previous studies reported similar findings. 14,15,19 Those studies further stated that passive or self method of partner notification is the preferred approach for majority of patients and may be the only option in non-specialist settings.14,15 The implication of these findings are that it will help in reduction of re-infection in the index patient and the spread of STIs including HIV among unsuspecting populace including children.

Also from this study, majority, have their partner(s) tested before, with 28.1% of their partner testing positive for HIV. Out of these positive partners about 92.0% were linked to HIV care and treatment. This is promising and if sustained will help reduce the scourge of HIV on both index cases and their partners. A recent systematic review of partner notification found that helping get treatment to partners reduced re-infection in the index case by almost 30% compared with simple patient referral.16 Provider referral, where the healthcare worker contacts partners directly, can also be effective, and provides an important service for patients who are wary of informing partners themselves.16

This study showed that majority were positive on overall perception (about 95%) as well as component Gender-based Barriers to HIV (>75%). Some of them include; fear of violence, fear of stigmatization, fear of loss of relationship or income and cultural norms that frown on having multiple sexual partners. Previous studies documented that fear of intimate partner violence has been shown to be an important barrier to the uptake of HIV testing and counseling, to the disclosure of HIV-positive status, and to treatment uptake and adherence, among pregnant women who are receiving antiretroviral treatment (ART) as part of services to prevent mother-to-child transmission (PMTCT).17 An assessment of Demographic and Health Survey results in ten sub-Saharan African countries found physical and emotional intimate partner violence to be strongly associated with HIV infection in women.[18](https://www.avert.org/professionals/social-issues/gender-inequality#footnote23_wc80bdx)

This current study documented that there were no statistical significant associations of age, Sex, educational level, Religion, Occupation, marital status, spouse educational level and spouse Occupation with perception of gender based barriers on HIV. However, this may be not same with practice on partner notification as a study identified main barrier to participation by women and providers as the culturally dominant role of partners in decision-making.20 In same study women who believed they were infected by their partner were about 3 times more likely to disclose and those who tested for HIV before their partner were about twice more likely to disclose early (OR=2.26, 95% CI 1.14, 4.48). Gender inequalities, including gender-based and intimate partner violence, exacerbate women and girls’ physiological vulnerability to HIV and block their access to HIV services. HIV is not only driven by gender inequality, but it also entrenches gender inequality, leaving women more vulnerable to its impact.

**CONCLUSION**

Partner notification and/or sexual network testing was encouraging as majority agreed to partner notification with preferred method being passive or self method. Majority have their partner(s) tested before with almost all positive partners linked to HIV care and treatment. Almost all were positive on overall perception as well as component Gender-based Barriers to HIV however no association with characteristics of participants. More dedicated attention is needed to augment current efforts in order to meet the desired success.

**REFERENCES**

1. UNAIDS. Global AIDS Update 2016. 2016. <http://www.unaids>.org/sites/default/files/media\_asset/global-AIDS-update-2016\_en.pdf. Accessed September 27, 2017.

2. Ward H. Partner notification and contact-tracing. Medicine (Elsevier). 2005 Sep 1;33(9):28-30. doi:10.1383/medc.2005.33.9.28.

3. Global health sector response to HIV, 2000-2015: focus on innovations in Africa: progress report. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/handle/10665/198065, accessed 11 October 2018).

4. Global update on the health sector response to HIV. Geneva: World Health Organization; 2014 (http:// www.who.int/hiv/pub/progressreports/update2014/en/, accessed 16 May 2016).

5. Bond VA. “It is not an easy decision on HIV, especially in Zambia”: opting for silence, limited disclosure and implicit understanding to retain a wider identity. AIDS Care. 2010;22 Suppl 1:6-13. doi: 10.1080/09540121003720994.

6. Towards universal access by 2010: how WHO is working with countries to scale-up HIV prevention, treatment, care and support. Geneva: World Health Organization; 2006 (http://www.who.int/hiv/ mediacentre/universal\_access\_progress\_report\_en.pdf.

7. Clark JL, Long CM, Giron JM, Cuadros JA, Caceres CF, Coates TJ, et al.; NIMH Collaborative HIV/STD Prevention Trial. Partner notification for sexually transmitted diseases in Peru: knowledge, attitudes, and practices in a high-risk community. Sex Transm Dis. 2007 May;34(5):309-13.

8. Bobrow EA. Factors that influence disclosure and program participation among pregnant HIV-positive women: a mixed method.

study in Lilongwe, Malawi [dissertation]. Chapel Hill (NC): University of North Carolina at Chapel Hill; 2008.

9. Deribe K, Woldemichael K, Wondafrash M, Haile A, Amberbir A.Disclosure experience and associated factors among HIV positive men and women clinical service users in Southwest Ethiopia. BMC Public Health. 2008 Feb 29;8:81. doi: 10.1186/1471-2458-8-81.

10. King R, Katuntu D, Lifshay J, Packel L, Batamwita R, Nakayiwa S, et al. Processes and outcomes of HIV serostatus disclosure to sexual partners among people living with HIV in Uganda. AIDS Behav. 2008 Mar;12(2):232-43.

11. Edward O, Simon C, Chris O, Barinaadaa A, Chibuzor O, Hadiza K, Satish RP, et al. Sexual network testing as a strategy to reach the first 90; so much promise despite the barriers.FHI360 Nigeria. 2017.

12. Prevention gap report. Geneva: Joint United Nations Programme on HIV/AIDS; 2016 (http://www.unaids. org/sites/default/files/media\_asset/2016-prevention-gap-report\_en.pdf, accessed 1 August 2016).

13. Factsheet to the WHO consolidated guidelines on HIV testing services. Geneva: World Health Organization; 2015 (http://www.who.int/hiv/topics/vct/fact\_sheet/en/, accessed 5 August 2016).

14. Philips M., Poulton M., HIV Transmission, the Law and the Work of the Clinical Team. 2013. British HIV Association (BHIVA) and British Association for Sexual Health and HIV (BASHH)

15. Trelle S., Shang A., Nartey L., Cassell J.A., Low N. Improved effectiveness of partner notification for patients with sexually transmitted infections: systematic review. BMJ. 2007L17;334:354.

16. Ward H, Bell G. Partner notification. *Medicine (Abingdon)*. 2014;42(6):314-317.

# 17. AVERT. Gender Inequality and HIV. Global information and education on HIV and AIDS

18**.** Nudelman A. Gender-Related Barriers to Services for Preventing New HIV Infections Among Children and Keeping Their Mothers Alive and Healthy in HighBurden Countries Results from a Qualitative Rapid Assessment in the Democratic Republic of Congo, Ethiopia, India, Nigeria and Uganda. Discussion Paper UNAIDS, December 2013

19. Yaya I, Saka B, Landoh DE, Patchali PM, Patassi AA, Aboubakari A-s, et al. (2015) HIV Status Disclosure to Sexual Partners, among People Living with HIV and AIDS on Antiretroviral Therapy at Sokodé Regional Hospital, Togo. PLoS ONE 10(2): e0118157.

20. Emily Anton Factors that influence disclosure and program participation among pregnant HIV-positive women: a mixed methods study in Lilongwe, Malawi. Electronic Theses and Dissertations. 2010 Available at: http://rightsstatements.org/vocab/InC/1.0/ assessed 9/11/2018