INTRODUCTION

HIV/AIDS is ravaging sub-Saharan Africa, with greater than 60% of all HIV infections in the world occurring in this region. To date, few empirical studies have examined the sexual relationships and sexual behaviors of people living with HIV/AIDS (PLWHA) in Africa. In a study from Uganda, 47% of HIV-positive men and 21% of HIV-positive women were sexually active before initiating ARV treatment, with 45% of these people reporting unprotected intercourse in a 3-month period.

Not disclosing HIV status to sex partners is probably the product of multiple factors. Some people living with HIV infection may generally conceal their HIV status from people in their lives, not just their sex partners. In addition, people who do not disclose their HIV status may have had adverse experiences related to previous disclosures, including loss of social support, rejection, loss of employment, violent reactions and other forms of discrimination. Finally, people who fail to disclose their HIV status may merely lack a sense of being able to effectively disclose their HIV status, especially to their sex partners.

Disclosure of HIV status is a planned and selective behavior which responds to the person's balance of potential risks and benefits of secrecy and disclosure. It might also be considered to be an expression of responsibility towards a spouse or sex partners. Disclosure to others, lovers, family or friends, has been shown...
to be a potent stressor, as individuals living with HIV/AIDS might fear negative reactions such as blame, rejection or violence.\(^7,8,9\)

Obviously, progression of HIV might precipitate disclosure due to visible signs of disease or an urgent need for emotional support.\(^10\) However, as HAART has caused HIV infection to become a chronic condition, this situation might have become less frequent, at least in countries with accessible treatment.

Among the various determinants of disclosure behavior, cultural factors have been identified, both regarding level and pattern of disclosure. Friends appear to be closer confidants than immediate families among gay men, while relatives might be chosen as confidants over spouses among HIV+ African women.\(^11\)

Fear of being a burden to the immediate family, or stigma associated with HIV infection, might force persons living with HIV/AIDS (PLWHA) to keep their disease secret from their social network, as has been shown in Asian populations.\(^12,13\)

Since the advent of HIV pandemics, disclosure of patient serostatus to sexual partners has been the concern of HIV caregivers. Overall rates of disclosure vary between studies, but many studies indicate that disclosure does not occur in a substantial majority of sex partnerships, perhaps 20% to 50% in developed countries.\(^14,15\) This is however different in developing countries where rate of disclosure is said to be lower. McNiel et al reported a disclosure of 24.7% among spouses and 18.8% among sexual partners.\(^16\)

Though married spouses are more likely to disclose than casual sexual partners but for fear of rejection, non-disclosure is expected to be common amongst stable relationships that may lead to marriage. The most common reason for non-disclosure among married couples was fear of separation/divorce.\(^17\)

Previous studies have shown that, one, not disclosing positive HIV serostatus to at least some sexual partners is common,\(^18-20\). Two, HIV-positive persons are more likely to disclose their status to steady partners than to non steady partners,\(^21-22\) and three, unprotected sex without disclosure occurs within both casual and steady type of partnerships.\(^18-22\)

The purpose of this study was to determine the rate, pattern and factors associated with non disclosure of HIV serostatus among people living with HIV.

**MATERIALS AND METHODS**

A cross-sectional survey was carried out at the HIV clinic of the Lagos University Teaching Hospital after obtaining ethical clearance from the institution review board. Eligibility criteria were; being 18 or older and in a heterosexual relationship(s). Patients with severe physical or mental impairment (as assessed by their attending physician), and those with other sexual orientation (eg men sex men, women sex women and bisexuals) were excluded from the study.

Subjects were randomly selected during their regular scheduled appointment. Questionnaire administrations took place at the hospital clinics and were administered in English by trained interviewers. The questionnaire covered a range of social issues including history of HIV testing and treatment, employment, income and living conditions, parenthood, sexuality and sexual relationships, social network and disclosure.

After the administration of the questionnaire, those that indicated they had not disclosed had individual counseling sessions on the benefits of disclosure and thereafter asked about the willingness to disclose.

Disclosure was defined as the patient him/herself telling his/her sexual partner/spouse in heterosexual relationships about positive HIV serostatus.

Four hundred and ninety nine participants were included in the statistical analysis and data was subjected to descriptive analysis using Epi Info version 3.5.1 (2008). Test of significance was set at \( P < 0.05 \).

**RESULTS**

Four hundred and ninety nine participants were enrolled into the study consisting of 342 females and 157 males with a mean and median age of 37.3 ± 9.6 and 36 years respectively.

Though all the participants were African, there was a tribal diversity with about 44.4% being Igbo, 28.8% Yoruba, 4.2 % Hausa and 22.6% were from other Nigerian tribes. Majority (62%) of participants were married, 19.8% were single, 12% were widow, 3.2% were divorced and the rest 3% were separated. Many of the participants had formal education (secondary
Majority of both married and singles that had disclosed are in the same age range 31-40 years (44.8% and 35.4% respectively). (Table 1)

Many of those that had disclosed (married 44.5%; and single 38.6%) had completed secondary school education and a few in both instances (married 2.9%; single 4.8%) had no formal education. The probability that a male participant will disclose his HIV serostatus, whether married or singles (married 89.1%; single 19.1%) is not significantly higher than that of a female participant disclosing her status (married 86.5%; single 19%). P = 0.63

Though majority of those that are single whether they had disclose or not had single sex partners, those with multiple sex partners are more likely not to disclose. P=0.0063 (Table 2).

Majority, 96.7% (297 of 307) of those that had disclosed their status had no regret for disclosing and had not suffered rejection or any other adverse event for disclosing.

Reasons given for not disclosing include fear of rejection (65%); loss of intimacy (32.5%); stigmatization 21.3%; loss of economic support (15%) and threat to personal well being (12.5%).

Protected sex is found to be common among the sexually active participants. Of the 192 who had not disclosed their status, only 53 (27.6%) claimed they were sexually active. Out of this, 43 (81.1%) claimed they use condom regularly and consistently while 10 (18.9%) do not use condom or any form of protection.

After counseling on the benefit of disclosure, 59 (30.7%) of 192 who had not disclosed their status thought that counseling had helped them overcome the fear of not wanting to disclose but only 18.8% (36 of 192) was still willing to disclose.

DISCUSSIONS

The belief that disclosure of HIV status to sexual partners will lead to rejection and stigmatization appears not to be true as majority of participants in the study expressed no regret for disclosing their status.

Although declining somewhat over the past few years, the levels of stigma and discrimination against people with HIV/AIDS still remains high in Nigeria especially in some communities least affected by HIV/AIDS. However, the outcome of disclosure to sexual partners, relations and friends is expected to be different from that of disclosure to private employers and colleagues in Nigeria where enforcements of labour rights of individuals are poorly coordinated.

Disclosure of HIV status to sex partners is therefore less likely to occur when a person has experienced adverse outcomes from previous disclosures for non sexual partners.

For couples, spouse/steady partner appears to be the first and the most reliable confidant as many of the couples interviewed confessed to disclosing to their spouses before friends and family members. This finding differs from observations among pregnant Tanzanian HIV+ women who were more likely to tell their status to a female relative when it was concealed from their spouse 24.

Sexual transmission risk behaviours were not found in this study in people who had not disclosed their HIV status to sex partners. This may suggest a successful campaign on the use condom at our centre. That this finding does not agree with what was found by many authors in other parts of the world may however suggest

| Age group (years) | Disclosure (%) | Non disclosure (%) | Total |
|------------------|----------------|--------------------|-------|
| Maried           |                |                    |       |
| ≤20              | 0 (0.0)        | 0 (0.0)            | 0     |
| 21 – 30          | 63 (23.2)      | 11 (28.2)          | 74    |
| 31 – 40          | 122 (45.0)     | 17 (43.6)          | 139   |
| 41 – 50          | 65 (24.0)      | 9 (23.1)           | 74    |
| 51 – 60          | 17 (6.3)       | 1 (2.6)            | 18    |
| >60              | 4 (1.5)        | 1 (2.6)            | 5     |
| Single           |                |                    |       |
| ≤2 0             | 0 (0.0)        | 4 (2.6)            | 4     |
| 21 – 30          | 15 (41.7)      | 41 (29.4)          | 56    |
| 31 – 40          | 14 (38.9)      | 53 (34.6)          | 67    |
| 41 – 50          | 7 (19.4)       | 33 (21.6)          | 40    |
| 51 – 60          | 0 (0.0)        | 16 (10.5)          | 16    |
| >60              | 0 (0.0)        | 6 (3.9)            | 6     |
| Total            | 307            | 192                | 499   |

Table 1: Age group, marital status and HIV serostatus disclosure

42.2%, tertiary 33.8% and primary 20.4%) while very few (3.6%) had no formal education. Of the 499 participants, 307 (61.5%) had disclosed their HIV status to their spouses/sexual partners while 192 had not. Many of the married participants (87.4%) had disclosed their HIV status to their partners while only a few (19%, 36 of 189) of the singles in sexual relationships had disclosed their status.

Majority of both married and singles that had disclosed are in the same age range 31-40 years (44.8% and 35.4% respectively). (Table 1)
insincerity among our respondents. For example, Simbayi et al. found a close association between having not disclosed HIV status to sexual partners and engaging in practices with high risk of HIV transmission in PLWHA in South Africa. And in another study conducted in two United States cities, Stein MD et al. found a high rates of non disclosure and the low rates of condom use, and concluded that sexual partners of HIV-infected persons continue to be at high risk for HIV transmission.

In this study, we found that HIV-related fear of rejection, loss of intimacy and stigmatization that are associated with not disclosing HIV status to sexual partners may not be overcome by conventional counseling techniques. We also found that unprotected intercourse and not disclosing HIV status to partners was found in multiple partnership relationship.

Even though counseling on the benefit of disclosure seems to help, 30.7% overcame the fear of not wanting to disclose their status, that only 18.8% of those that agreed that it has helped were willing to disclose after counseling has highlighted the fact that a new approach is necessary to complement the present counseling methods. An approach we recommend is 'confidant assisted counseling' in which a trusted family member or a friend is present with the patient in the counseling room and this confidant continues with the counseling after the patient has left the clinic. The counselor is able to monitor progress made through this trusted confidant.

In conclusion, a higher rate of disclosure when compared with similar studies was found in our centre. We also found a low level of sexual transmission risk among our non-disclosure group and that nondisclosure of HIV status is common among those with multiple sexual partners. Lastly, we recommend 'confidant assisted counseling' as a new counseling approach to support present counseling methods.

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