Factors Affecting HIV Positive Status Disclosure among People Living with HIV in West Showa Zone, Oromia, Ethiopia; 2013

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Abstract

**Background:** Disclosure of HIV positive status to at least one family member or relative is paramount important for adherence to highly active anti-retroviral therapy (HAART) which enters increase survival and quality life of the people living with HIV (PLHIV). Despite the importance of HIV sero positive status disclosure most PLHIV concealed their sero status from their family/relatives even from their sexual partner. The aim of this study was to assess factors that affect PLHIV to disclose their HIV positive status to their sexual partner.

**Methods:** A cross-sectional study using qualitative research approach supplemented by qualitative methods was conducted from October to March 2013 among 360 people living with HIV (PLHIV) attending ART clinic in Ambo Hospital. Simple random sampling technique was used to select the study participants. Data were collected through face to face interview and focus group discussion using pre-tested structured questionnaire and semi structured interview guides, respectively. Crude and adjusted odds ratios using logistic regression analysis were used to explore associations between different variables and HIV status disclosure.

**Results:** The study revealed that the prevalence of HIV status disclosure to at least one person was 86.2% (95% CI: 82.5-89.3); whereas 84.9% study subjects were disclose their HIV positive sero status to their sexual partner. Marital status (AOR = 0.12, 95% CI: 0.036-0.39), knowledge of partner HIV status (AOR = 5.7, 95% CI: 1.89-17.4), prior discussion about HIV/AIDS (AOR = 6.3, 95% CI: 1.05-38.12), length since HIV test done (AOR = 0.05, 95% CI: 0.01-0.32), and being on HAART (AOR = 0.11, 95% CI = 0.03-0.46) were significant predictors of HIV status disclosure to sexual partners.

**Conclusion:** Knowledge of partner HIV status, prior discussion about HIV/AIDS before test, length since tested for HIV and ART initiation were significantly associated with HIV positive status disclosure to sexual partner. Hence the health workers should address the issue of open discussion among couples to enhance HIV status disclosure to sexual partner and decrease HIV status transmission by hiding once HIV positive status due to fear of divorce, stigma and discrimination.

**Keywords:** HIV positive status disclosure; PLHIV; Ambo; Ethiopia

Introduction

In 2012, an estimated 35.3 million people were living with Human Immunodeficiency Virus (HIV), 2.3 million new HIV infections and 1.6 million AIDS related death occurred globally in 2012 [1]. According to Ethiopia Demographic and Health Survey (EDHS) report of 2011, adult prevalence of HIV infection in Ethiopia was 1.5%. The prevalence was higher among women (1.9%) than men (1.0%) [2].

HIV status disclosure is important for HIV prevention and highly active anti-retroviral therapy (HAART) adherence [3]. Disclosure provides many important benefits to the infected individual and to the public. It motivates sexual partners to seek HIV testing, change behavior and ultimately decrease transmission of HIV. For instance, women who disclose their status to their partners may be more likely to participate in prevention of mother to child transmission (PMTCT) programmes. By adequately addressing the emotional, social, and practical sequel of her positive status, she may be more willing to adopt and maintain health behaviors such as cessation of breastfeeding or adherence to treatment regimens [4].

However, disclosure of HIV status may have potential risk for the infected individual, such as disruption of family relationship, stigma and rejection/discrimination, and blame [5]. Disclosure was less likely to have occurred if the woman had experienced two or more of the different types of violence [6]. The fear of stigmatization may force PLHIV to hide their HIV status. For instance, a study done in Botswana on barriers to antiretroviral adherence to patients living with HIV infection and AIDS showed that due to the fear of stigma, 69% kept their HIV status secret from their families, and a further 94% kept it secret from their society [7].

Initiatives to provide antiretroviral therapy sometimes require that patients disclose to a supportive individual in their network, on the basis of a large body of evidence indicating that disclosure facilitates initiation of and adherence to antiretroviral therapy, whereas worries about disclosure contribute to secrecy and missed medications [4,8]. To encourage beneficial disclosure, countries need to establish safe social and legal environments in which more people are willing and able to get tested for HIV and are empowered and encouraged to change their behavior according to the results [9].

Disclosure can have a significant impact on adherence to medical...
regimens; reduce HIV transmission, access to support services, reductions in mental health symptoms and effective adaptation to living with HIV. A study conducted in Cameroon among HIV infected women and in Uganda among people living with HIV revealed that disclosure of HIV sero status was critical because of its significant links to safer sex practices [10,11]. A study done in Botswana and New York showed that nondisclosure of positive HIV status to their partner/relatives was predictor of poor adherence to ART [12,13].

Other studies done in rural China and Tanzania showed that HIV status disclosure was a significant predictor for access to care [14,15].

Despite the importance of HIV status disclosure many PLHIV hide their sero status even from their sexual partners which increase the incidence of HIV/AIDS transmission. The aim of this study was to assess factors affecting HIV sero positive status disclosure to their sexual partners.

**Methods and Materials**

**Study design and population**

Institutional based cross sectional study was conducted from October to March 2013 using quantitative research approach supplemented by qualitative methods. A total of 360 people living with HIV (PLHIV) attending ART clinic of Ambo Hospital were participated in the study. The sample size was determined by using single population proportion formula. A total of four purposively selected focus group discussions were conducted among PLHIV who were currently on HAART but not participated in the quantitative study were included in the qualitative study.

**Study area**

The study was conducted at Ambo Hospital in West Shewa Zone of Oromia Regional State. Ambo town, which is the capital of West Shewa Zone, is located at 114 km to the West of Addis Ababa. An estimated 76,774 population were inhabitants in the town. There are different levels of both government and private health facilities offering health services in the town. Ambo Hospital is the only Zonal Hospital in West Shewa Zone; currently it provides comprehensive health services (prevention and curative) including VCT, ART and PMTCT services. The ART clinic was established in October 2005. A total of 4019 patient started ART from which 2224 clients were currently on ART and 3006 clients were on pre–ART.

**Sampling procedures**: Preliminary assessment was conducted to identify PLHIV who were on ART at Ambo Hospital from the registration book of the clients. Four thousand and nineteen (4019) PLHIV start ART at Ambo Hospital; of which 3696 PLHIV were 18 years and above. From 3696 PLHIV who where at least 18 years 792 (21%), 496 (13.4%), 177 (4.8%) and 7 (0.2%) clients were transferred out, default, died and lost to follow up respectively and only 2224 (60.2%) PLHIV were on ART at Ambo Hospital during the study period. One thousand PLHIV who fulfilled the inclusion criteria were identified during the study period (October–March, 2013).

To maintain the confidentiality of the study participant information unique number was provided for each client’s card number. From client’s unique number the sampling frame of PLHIV who were currently on ART was produced and 400 study subjects were selected using computer generated random number. To make the data collection process easier the client appointment date was identified during the study period (October–March, 2013).

**Data collection procedures**: The data were collected from October to March 2013 by using structured, standardized and pre-tested questionnaire after it was prepared by reviewing prior studies and other related materials with some modification [16]. The questionnaire was prepared in English language and translated into Afan Oromo and back to English.

The data collectors and supervisors were trained for 2 days. They approached PLHIV by introducing themselves and collect information after explaining the purpose of the study by reading the study information sheet. The qualitative data were collected by using semi-structured interview guide to explore the relationship between disclosure and HAART adherence.

**Data quality assurance**

Data quality assurance was in place during questionnaire designing, data collection and data entry. The quantitative questionnaire was objective based, logically sequenced, non-leading and pretested. The collected data were checked for completeness, accuracy, clarity and consistency by the supervisor and principal investigator. Daily strict follow-up and checking of the data was done in order to manage any problem encountered. Timely feedback was given for the data collectors and the supervisor.

**Data processing and analysis**

Data were coded, entered and cleaned by using Epi Info version 3.5.1 and imported to SPSS version 16.1 for analysis. The data were summarized in percentages, tables and graphs. Crude and adjusted odds ratios with their 95% confidence intervals (CIs) using logistic regression analysis were computed to identify factors associated with HIV positive sero status disclosure to sexual partners. In multiple logistic regression analysis only variables that had a p-value less than 0.3 were used to avoid an excessive number of variables and unstable estimates in the subsequent model (40). P-value less than 0.05 were considered to see the statistical significance. For the qualitative data narrative analysis was used based on the recording and field notes taken during the interview. The data were transcribed and translated word-by-word for analysis. The qualitative finding was triangulated with the quantitative findings.

**Operational definitions**

- **HIV positive status disclosure**: sharing one’s own HIV positive diagnostic test result to sexual partners.
- **Non disclosure**: making secret one’s own HIV diagnostic test result from their sexual partners.

**Ethical considerations**

The study was undertaken by obtaining ethical clearance from Ambo University, College of Medicine and Health Sciences, Ethical committee. An official letter from College of Medicine and Health Sciences was written to Ambo Hospital to obtain permission to carry out the study at the ART clinic of the hospital. The aim, purpose, benefit and method of the study were clearly explained to the study participants. Written consent was sought from all study participants before the interview.

**Results**

**Socio-demographic characteristics of the study participants**

A total of 358 PLHIV attending ART clinic at Ambo Hospital
participated in the study, giving a response rate of 99.5%. The age of the participants ranged from 18 to 80 years with a mean (SD) of 36.3 (± 9.1) years. Of the total participants, 61.9% were female. Majority 269 (75.1%) of respondents were from urban area. About 88% of the study participants were Oromo in ethnicity. More than half (63.3%) of the respondents were Orthodox Christians. One hundred eighty two (43.3%) have attended primary school, (69.5%) were unemployed, 205 (57.3%) were married and the median monthly income of the study participants was 300 Ethiopian Birr. At the time of the study, the mean duration of ART was 37.9 ± 23.9 months. The duration of diagnosis for the study subjects ranged from 3 to 216 months. Fifty (11.9%) of the study participants had known their HIV status for less than a year but the rest 299 (83.5%) knew their status and were living with the virus for more than a year.

Rate of HIV positive status disclosure

Three hundred forty three (86.2%) of the respondents disclosed their HIV positive status at least to one person and 304 (84.9%) disclosed to their sexual partner but the rest 43 (14.1%) did not disclose their status to their sexual partner. However, for 49 (13.8%) of the respondent disclosure of their HIV status to anyone was a difficult issue. The rate of disclosure was achieved over a period of time; three hundred four (84%) of the participants disclosed immediately, 5.9% between 1 month and 6 month, 10.5% after 6 months of diagnosis.

As shown in Figure 1, the first individual to whom the respondents disclosed their HIV result was mainly to their family members 259 (75.4%), followed by disclosure to sexual partners (67.4%).

Reasons for non-disclosure: Reasons for non-disclosure among those respondents who did not disclose their test results to anyone (n = 49) included fear of stigma and discrimination 41 (84.5%), fear of accusation of infidelity 39 (79.6%), fear of confidentiality 36 (74.0%) and fear of abandonment 5 (10.2%). Whereas the common reasons for non-disclosure of their sero status to their partner (n = 43) were fear of accusation of infidelity 34 (79%), fear of confidentiality 30 (69.8%), fear of stigma 29 (67%) and fear of abandonment 9 (20.9%) (Figure 2). The qualitative finding also supports this finding.

A 45 year’s old male participant said, “If you disclose your status; people take you as an unfaithful person, and also they point their finger at you so you face a great stigma and discrimination. This makes you hide your status to avoid those things. For example, in our village there was a man who committed suicide after he had lost his wife due to disclosure of his status publicly.”

Outcomes of HIV status disclosure to sexual partners: Following disclosure of the HIV test result to their partners, the reaction/response was positive for 254 (83.6%) study participants and negative for 50 (16.4%) respondents. Receiving kindness 210 (82.8%), acceptance 191 (75.3%), increased support 149 (66.1%) and decision to be tested for HIV by the partner 106 (41.8%) were positive outcomes following HIV positive sero status disclosure to sexual partner. The negative outcome commonly encountered following sero status disclosure were anger 39 (78.7%), blame 36 (72.3%), stigma 26 (51.1%), violence 17 (34%), abandonment 15 (29.8%), and breakup of the relationship 12 (23.4%).

A 33 year old female participant said “My partner annoyed at me while I told him my status and our relationships became loose after that”. Another female discussant said “My partner shouted at me and left me alone and want away while I told him my status "disclosure of my status was the reason for breakup of my marriage."

Factors associated with HIV positive status disclosure to sexual partner

In bivariate logistic regression analysis marital status (PV = 0.000, COR = 0.09, 95% CI: 0.04-0.18), length since HIV test done (PV = 0.000, COR = 0.089, 95% CI: 0.43-0.18), discussion with sexual partner about HIV/AIDS before test (PV = 0.005, COR = 7.8, 95% CI: 1.85-33), relationship before test (PV = 0.023, COR = 2, 95% CI: 1.1-3.8), knowing partner HIV status (PV = 0.000, COR = 23.5, 95% CI: 11.3-49), HIV status disclosure facilitate ART initiation and adherence (PV = 0.000, COR = 9.6, 95% CI: 4.5-20) and month on ART (PV = 0.000, COR = 0.25, 95% CI: 0.13-0.48) showed association with HIV status disclosure to sexual partner (Tables 1 and 2). Whereas in multivariate analysis, knowing partner HIV status (AOR = 5.7, 95% CI: 1.89-17.4), Discussion about HIV before test with their partners (AOR = 6.3, 95% CI: 1.05-38.12), Length since HIV test done (AOR = 0.045, 95% CI: 0.006-0.323), marital status (AOR = 0.12, 95% CI: 0.036-0.39), and initiation of ART medication (AOR = 0.11, 95% CI: 0.027-0.46) were significantly associated with HIV status disclosure to sexual partners.

Those PLHIV who know their partners HIV status were 5.7 times more likely to disclose their HIV positive sero status than their counter
Disclosure facilitates HAART adherence

Almost all participants agree with that of disclosure and HAART adherence had interrelated. Most of the participants reported their family/relatives remind them to take the medication on time. A 36 year’s woman said…..”Disclosure is very important! For example, I freely take my medication everywhere even on the street if the time is up I go to someone’s home and ask a glass of water and take it. In case if they ask me I tell them that I am taking ART. So people accept and support me. Shortly… disclosure made me free from stress and healthy; you know that…. ART itself did not allow stressful condition to work properly so, to make your medication work properly and healthy you should have to free from any stress.”

A 45 years female discussant: “Before I disclose my status I discontinue the medication for at least four months because I afraid to take the medication in front of other people but after I disclosed I took medication correctly without missing any pills since my children remind me.”

Another female discussant “For how long I took the medication without telling my status?” for example the gust my come in to my house, and also I may away from home to visit other so if they did not knew my status how can I took my medication?”

Discussion

The study was conducted to assess factors affecting HIV positive status disclosure among PLHIV attending ART clinic in Ambo Hospital in West Showa Zone. The study revealed 86.2% of the respondents disclosed their status to at least one person while 84.9% disclosed their status to their sexual partner. The disclosure rate in this study was comparable with study done in Africa (18).

In study conducted in South Africa (18) it was found that 81% of the subjects had disclosed their sero status to at least one person. However the studies done in Nigeria, Jimma and Hawassa found higher rate of disclosure than the finding of this study; 97.1%, 94.5% and 92.2% of the study subjects disclosed their status to at least one person respectively [17-20]. The reason for lower disclosure rate found in this study might be attributed to the difference in study subjects; in the current study be attributed to the difference in study subjects; in the current study [17,20]. In that knowing a partner’s HIV status was found to be associated with the disclosure of one’s own status to a partner.

The study revealed that family members followed by sexual partner were the first persons to whom the PLHIV disclose their sero status. The disclosure rate in this study was comparable with study done in Africa (18).

Similar to other findings (20) in the current study 20.1% and 73.7% of the respondents reported that they had discussed on HIV and VCT issues prior to test for HIV/AIDS and knew their partners HIV status respectively. The results of this study were in agreement with other studies [17,20]. In that knowing a partner’s HIV status was found to be associated with the disclosure of one’s own status to a partner.

The study revealed that family members followed by sexual partner were the first persons to whom the PLHIV disclose their sero status. This finding is in line with a study done in Kamisse district Northeast Ethiopia in which majority of the study participants disclose their HIV sero status to their current sexual partner followed by their family members [21].

As this study revealed the main reasons for non-disclosure of HIV positive sero status to any one were fear of stigma and discrimination, fear of accusation of infidelity, fear of confidentiality and fear of abandonment. Whereas fear of accusation of infidelity, fear of confidentiality, fear of stigma and fear of abandonment were the common reasons for non-disclosure of their sero status to their sexual partner.

The finding was in agreement with the study done in Kamisse district, Uganda and a literature review which showed that fear of...
stigma and discrimination, fear of divorce and fear of abandonment where the main reason for not disclosing their HIV positive sero status to their sexual partner [21-23]. This may be due to stigma and discrimination was the main barrier of HIV status disclosure which in turn reduced the prevention and control of HIV/AIDS.

Concerning the outcomes of HIV status disclosure to sexual partner; the study revealed that majority of the study participant’s received positive reaction from their sexual partners following to HIV status disclosure like receiving kindness, acceptance, increased support and decision to be tested for HIV by the partner. The finding also aligned with the study done in Kamisse North east Ethiopia which showed that following disclosure of HIV status to sexual partner majority of the study participants received positive reaction.

Another studies done in Tanzania and Uganda also revealed similar findings; in which PLHIV disclose their sero status in order to close to the disclosed person, to get support and received emotional and financial support following disclosure [21-24]. This showed that disclosure of HIV status to somebody else has its own purpose and positive reaction following disclosure which enhances PLHIV to disclose their status and reduce HIV transmissions by practicing safe sex by sexual partners.

In this study, marital status, knowing partner HIV status and prior’s discussion about HIV/AIDS before test, duration since tasted for HIV and initiation of ART treatment showed association with HIV positive sero status disclosure to sexual partner. Un married PLHIV are 12% less likely to disclose their sero status than un married; this finding is in line with study done in Axum health facility which showed married study participants more disclose their sero status than un married [25].

The multivariate logistic regression analyses showed that marital status, length of HIV test, discussion about HIV/AIDs before test, knowing partner HIV status and initiation of ART had statistically significant association with treatment adherence. The study also revealed that those study participants, who know their partner HIV status, had discussion before test and start ART more likely to disclose their HIV status than their counter parts.

Those PLHIV who know their partner HIV status were 5.7 times more likely to disclose their HIV status to their sexual partner than those PLHIV who did not know their partner HIV status. The finding was similar with most studies done in Kamisse North east Ethiopia, Axum health facility, Woldia and Mekele Hospitals; in which knowing partner HIV status and prior discussion were significantly associated with HIV status disclosure to their partners [21,25-27].

This might be due to having discussion about HIV/AIDS among the couples before test help them accept the result whatever it is and also the couples had knowledge about HIV/AIDS. In addition, knowing partner HIV status reduce the fear of negative consequences of disclosure and help PLHIV easily express their sero status without any stress.

The study also showed that starting HAART treatment and duration of HIV related care follow up associated with disclosure of HIV status; the finding also aligned with the studies done in six counties of Central America, Woldia Hospital and Mekelle Hospital which showed that being on antiretroviral therapy and long duration of HIV related care follow up associated with HIV status disclosure [26-28]. This might be due to being on HAART also a sign which showed as those people living with HIV/AIDS, so most PLHIV disclose their status when the start HAART since the treatment needs strict adherence to increase the quality of life and to make the treatment works correctly.

In addition some individuals need the support of others after they start HAART and as they had long time follow up related to HIV care, this fear is reduced and also they have information about the benefit of HIV status disclosure from health workers and their peers which help them disclose their status.

Conclusions

Majority of PLHIV disclose their sero status to at least one person.
The main reason for non disclosure of HIV statuses were fear of abandonment, fear of stigma and discrimination and fear of divorce. Marital status, knowledge of partner HIV status, prior discussion about HIV/AIDS before test, length since tested for HIV and ART initiation were significantly associated with HIV positive status disclosure to sexual partner. Hence, the health workers should address the issue of open discussion among couples to enhance HIV status disclosure to sexual partner and decrease HIV transmission by hiding once HIV positive status due to fear of divorce stigma and discrimination.

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References

1. UNAIDS (2013) UNAIDS report on the global AIDS epidemic. GLOBAL REPORT, pp: 1-197.
2. EDHS (2011) Ethiopia Demographic and the Health Survey, pp: 1-452.
3. Obermeyer CM, Baijal P, Peguri E (2011) Facilitating HIV disclosure across diverse settings: a review. Am J Public Health 101: 1011-1023.
4. World Health Organization (2004) Gender dimension of HIV status disclosure to sexual partners, Rates, Barriers, and outcomes. WHO report, pp: 1-69.
5. Medley A, Garcia-Moreno C, McGill S, Maman S (2004) Rates, barriers and outcomes of HIV serostatus disclosure among women in developing countries: implications for prevention of mother-to-child transmission programmes. Bull World Health Organ 82: 299-307.
6. Kadowa I, Nuwaha F (2009) Factors influencing disclosure of HIV positive status in Mityana district of Uganda. Afr Health Sci 9: 26-33.
7. Weiser S, Wolfe W, Bangsberg D, Thor I, Gilbert P, et al. (2003) Barriers to antiretroviral adherence for patients living with HIV infection and AIDS in Botswana. J Acquir Immune Defic Syndr 34: 281-286.
8. Biadgilign S, Deribe A, Ambergir A, Deribe K (2009) Barriers and facilitators to antiretroviral medication adherence among HIV-infected paediatric patients in Ethiopia: A qualitative study. Sahara J 6: 148-154.
9. World Health Organization (2008) Essential prevention and care interventions for adults and adolescents living with HIV in resource limited settings. World Health Organization report, pp: 1-120.
10. Loubiere S, Peretti-Watel P, Boyer S, Blanche J, Abega SC, et al. (2009) HIV disclosure and unsafe sex among HIV-infected women in Cameroon: results from the ANRS-EVAL study. Soc Sci Med 69: 885-891.
11. King R, Katuntu D, Lifshay J, Packel L, Batamarwa R, et al. (2008) Processes and outcomes of HIV serostatus disclosure to sexual partners among people living with HIV in Uganda. AIDS Behav 12: 232-243.
12. Do NT, Phiri K, Bussmann H, Gaolathe T, Marlink RG (2010) Psychosocial factors affecting medication adherence among HIV-1 infected adults receiving combination antiretroviral therapy (cART) in Botswana. AIDS Research and Human Retroviruses 26: 685-691.
13. Stirrat MJ, Remien RH, Smith A, Copeland OQ, Dolezal C, et al. (2006) The role of HIV serostatus disclosure in antiretroviral medication adherence. AIDS Behav 10: 483-493.
14. Ding Y, Li L, Ji G (2011) HIV disclosure in rural China: predictors and relationship to access to care. AIDS Care 23: 1059-1066.
15. Ramadhan HO, Thielman NM, Landman KZ, Ndosim ES, Gao F, et al. (2007) Predictors of Incomplete adherence, virologic failure, and antiviral drug resistance among HIV-infected adults receiving antiretroviral therapy in Tanzania. Clin Infect Dis 45: 1492-1498.
16. Deribe K, Lingerh W, Dejene Y (2005) Determinants and outcomes of disclosing HIV-sero positive status to sexual partners among women in Mekelle and Gore towns, Illibabor Zone southwest. Ethiop J Health Dev 19: 126-131.
17. Gari T, Hable D, Marks E (2010) HIV positive status disclosure to sexual partner among women attending ART clinic at Hawassa University Referral Hospital, SNNPR, Ethiopia. Ethiopian Journal of Health Development 24: 9-14.
18. Makin JD, Forsyth BW, Visser MJ, Sikkeema KJ, Neufeld S, et al. (2008) Factors affecting disclosure in South African HIV-positive pregnant women. AIDS Patient Care STDS 22: 907-916.
19. Igwegbe AO, Ugboaja JO (2010) Rate and correlates of HIV sero-status disclosure among HIV positive pregnant women in Nnewi southeastern Nigeria. Journal of Medicine and Medical Science 1: 296-301.
20. Deribe K, Woldemichael K, Wondafrash M, Haile A, Amberbir A (2008) Disclosure experience and associated factors among HIV positive men and women clinical service users in southwest Ethiopia. Biomedical Central Public Health 8: 81.
21. Seid M, Wasie B, Admassu M (2012) Disclosure of HIV positive result to a sexual partner among adult clinical service users in Kembissie district. Northeast Ethiopia. African Journal of Reproductive Health 16: 97-104.
22. Ssali SN, Auyambe L, Tumwine C, Seguia E, Nekesa N, et al. (2010) Reasons for disclosure of HIV status by people living with HIV/AIDS and in HIV care in Uganda: an exploratory study. AIDS Patient Care STDS 24: 675-681.
23. Bravo P, Edwards A, Rollnick S, Elwyn G (2010) Tough decisions faced by people living with HIV: a literature review of psychosocial problems. AIDS Rev 12: 76-89.
24. Yonah G, Fredrick F, Leyna G (2014) HIV serostatus disclosure among people living with HIV/AIDS in Mwanza, Tanzania. AIDS Res Ther 11: 5.
25. Berhane H, Yalow W, Ethal BW (2015) HIV positive status disclosure and associated factors among HIV positive adults in Axum health facilities, Tigray, Northern Ethiopia. Science Journal of Public Health 3: 61-66.
26. Erku TA, Megabiaw B, Wubshet M (2012) Predictors of HIV status disclosure to sexual partners among people living with HIV/AIDS in Ethiopia. Pan Afr Med J 13: 87.
27. Genet M, Sebsibe G, Gultie T (2015) Disclosure of HIV sero positive status to sexual partners and its associated factors among patients attending antiretroviral treatment clinic follow up at Mekelle Hospital, Ethiopia: a cross sectional study. BMC Research Notes 8: 1-6.
28. Vu L, Nieto-Andrade B, DiVincenzo A, Rivas J, Firestone R, et al. (2015) Effectiveness of behavior change communications for reducing transmission risks among people living with HIV in 6 countries in Central America. AIDS Behavior 19: 1203-1213.