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Proceedings

Adherence to antiretroviral therapy: Who are the defaulters? A study in Central Hospital, Benin City

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Abstract

Purpose: To determine adherence behavior of patients on antiretroviral therapy and factors associated with non-adherence.
Methods: This study was conducted among 266 patients receiving antiretroviral therapy in Central Hospital Benin City. Chi Square and Logistic regression were used for data analysis.
Results: Mean age of participants was 39.28±11.058 with majority being females (76.7%). Fifty-five (19.5%) patients had symptoms of depression. The mean score for self-reported adherence was 87.78±19.308. Half of the participants were 100% adherent. Alcohol users and depression negatively affected adherence ($p<0.05$).
Conclusion: This study reveals poor adherence among HIV patients.

Keywords: HIV, adherence, antiretroviral therapy

Indexing: Index Copernicus, African Index Medicus

Background

Human Immunodeficiency Virus (HIV) infection a chronic disease with increased survival time among infected patients is no longer a death sentence. This transition hinges on the availability of and efficacy of antiretroviral drugs. Still strict adherence (≥95%), must be maintained for prolong suppression of the virus and an improved quality of life of patients unlike for other chronic conditions [1]. Non- adherence to antiretroviral therapy has remained a challenge in achieving desired goals of HIV treatment. Adherence rates of 44-59.9% have been recorded in Nigeria [2].

Aim/Objectives

The objective of this study was to determine adherence behavior of patients on antiretroviral therapy and factors associated with non-adherence.

Materials and Methods

This cross-sectional study was conducted among 266 patients receiving antiretroviral therapy in Central Hospital Benin City. Pretested questionnaires consisting of items from the Patient Health Questionnaire-9 to screen for depression, Adherence to Refill and Medications Scale, and the Visual analog scale were self-administered to participants to determine adherence. Chi Square and Logistic regression using statistical software SPSS 20 were used for data analysis, p-values of less than 0.05 were considered significant.

Results

The mean age of participants in the study was 39.28±11.058. More females participated in the study (76.7%) than males. Fifty-five (19.5%) patients had symptoms of depression. The mean score on the visual analogue scale for self-

reported adherence was 87.78±19.308. Half of the study participants were 100% adherent while 133 (50%) of them were non-adherent. Adherence rate from this study is lower than 62% reported globally and also lower than reports in studies done previously in Southern Nigeria where adherence of 59.9%, and 54.5% were reported [2,3]. The figure from this study is almost similar to 49.3% adherence rate reported by Afiong et al [2], in a study done in Eastern Nigeria, at a time when the coverage of subsidized HIV medication was limited [2]. Studies conducted in Nigeria have reported lower adherence compared to those done in other African countries where HIV prevalence is high. In South Africa 68% and 77% of patients were ≥95% adherent using pill count method and self-report respectively, 62.2% in Ghana (self-report), 86.4% in Uganda (pill-count), and 87% in Ethiopia (self-report) although with varied adherence time-frame.

Results of the bivariate and multivariate analysis show that participants aged 18-29 years were less adherent than the older, however, adjusting for other cofounding variables showed that, age was not a predictor for adherence. Sex, education, income, marital status, adverse effects and length of duration of HIV were not statistically significant predictors for adherence both in the bivariate and multivariate analysis as suggested by some findings [3]. Whereas, alcohol use and depression were independent determinants of adherence to ART. After adjusting for confounding factors, alcohol users were 47.7% [(OR) 0.477; (CI) 0.282-0.854] less adherent than non-alcohol users. Seventy-four participants were alcohol users in this study, 46 of them had adherence below 90 on the VAS, thus accounting for 17.7% non-adherence in the general sample of study and 34.6% non-adherence among alcohol users. Alcohol use is a known predictor for non-adherence to ART, in a combined review, alcohol drinkers were approximately 50-60% less adherent compared to abstainers [4], although alcohol use in this study was not classified as either casual, heavy or drinkers with alcohol use disorder, other studies have linked both current alcohol consumption and hazardous drinking with non-adherence with females being more at risk [5].

This is a cause for concern as female drinking is now socially acceptable in this region. Alcohol use also increases depressive symptoms in patients. Suggested reasons for this relationship include the fact that patients may forget to take their medication as a consequence of alcohol consumption; alcohol use may help patients live in denial on HIV sero-positivity. It is also likely that alcohol users may be aware of possible adverse drug reaction when used with medications [4,5]. Similarly, non-depressed patients were 2.4 times more adherent than depressed patients (OR 0.416 (CI) 0.238-0.836). Of the fifty-five depressed patients in this study, thirty-four were less than 95% adherent on the VAS thereby accounting for 12.8% of non-adherence in the study population and 62% non-adherence among depressed population compared to 47% non-adherence among non-depressed patients in the study.

Alcohol use was a statistically significant factor for depression [(OR) 1.611; (CI) 1.138-2.282, p-value=0.01]. This trend was observed in a study conducted in Zaria, Nigeria, where 63.6% of study participants with depressive disorder had poor adherence to HAART compared to 21.1% of participants without depressive disorder [6]. In Cameroun, 75% of depressed patients were non-adherent compared to 35% of non-depressed patients [7]. Depressive symptoms are more in HIV patients than in the general population, it is linked to the inevitable reaction observed in the initial diagnosis of the infection, and associated stigma. Depression affects an individual's self-care behaviour which impacts negatively on adherence to ART [8].

Conclusion

This study reveals poor adherence rate among HIV patients. Depression and alcohol use were factors hindering adherence to ART in these patients. Improvement in the quality of education and counseling offered to patients on a regular basis and programs that help identify alcohol users and those at risk of depression can increase adherence in patients.

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