

Determinants of Adherence to Anti-Retroviral Therapy and High Risk Behaviour among HIV Infected Patients on Treatment in Nairobi Province, Kenya.

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Anti-retroviral therapy (ART) has been successful in dramatically decreasing the morbidity and mortality caused by HIV infection. Levels of adherence in excess of 95% are required to ensure treatment success, adequate viral load suppression, improved immune status and slowing of the disease progression. It has also been reported that a lot of complacency during ART and feeling of reduced infectivity by the patients on ART could lead to high risk sexual behaviour and enhance transmission of HIV. To date there is very little scientific data on ART adherence, factors influencing it and any resultant high risk behaviour in Nairobi, Kenya. This was a non-interventional cross-sectional study using rapid appraisal techniques for collecting both qualitative and quantitative data. The main objective of this study was to determine the levels of adherence, factors influencing it and identify any resultant high-risk behavioural changes during ART among patients in selected treatment sites in Nairobi Province, Kenya. A combination of data collection tools was used to gather the information in this study including semi-structured questionnaires, adherence measurement tool and FGDs. Qualitative data was consolidated using data matrices. Analysis of qualitative data was done by triangulation based on major themes or constructs. Quantitative data was analyzed using the statistical package for social scientists (SPSS) version 16.0. Hypothesis testing was done using Chi-square and Kruskal-Wallis tests to test the significance of the categorical variables. T-tests and Mann U Whitney tests (non-parametric tests) were used to assess the differences between groups for continuous variables. Multistage sampling design was used since convenience sampling was used to determine the health facilities after which systematic sampling was used to select the patients to be interviewed. The results indicated that just about half ,216 (48%) of the PLWHA had accurate knowledge of what ARVs were and what they do to the body. There was a significant relationship between knowledge of ARVs and adherence with those having more accurate knowledge more likely to adhere ($\chi^2 = 106.432$ df = 7, $p \leq 0.001$). The composite adherence ART level of adherence from the three methods used among patients in Nairobi was found to be 85% with 43% of the patients not achieving optimal adherence. The major factors that were found to constrain adherence were costs ($\chi^2 = 306.02$, df = 7, $p \leq 0.001$), lack of social support ($\chi^2 = 0.804$, df = 7, $p \leq 0.997$), side effects ($\chi^2 = 92.583$, df = 7, $p \leq 0.00$), distance to the facility, gender ($\chi^2 = 104.006$, df = 7, $p \leq 0.02$), CD4 count at start of treatment. The results also indicated that a good proportion 342 (76%) of the patients who had been on treatment for

over six months had engaged in high risk HIV transmission behaviour by either having sexual intercourse without protection or with partners of unknown HIV status. Quality of care is affected by lack of adequate supply of drugs and training of health workers. These findings will help policy intervention towards improving access and adherence to ARV through carefully planned and evaluated interventions. Furthermore, it will lead to the improvement of the quality of medication discussions and care so that both patients and care providers receive and understand the information they need, enable patients to accurately assess their readiness to initiate and adhere to ARV, identify gaps between knowledge and actual practice both for health workers and PLWHA. The information will also be given to the PLWHA to enable them reduce the high risk sexual behaviour that may predispose them to HIV re-infection. It is recommended that there should be more education and information provided to the patients prior to initiating ART so that they know the facts about ARVs. In conclusion, the study found that majority of patients on ART does not achieve optimum adherence levels and that 342 (76%) of patients on ARVs are engaging in risky sexual behaviour. The study also recommends more targeted counseling be provided by the care providers highlight the importance of adherence hence promoting adherence among the patients. There should also be improved education targeting the PLWHA to sensitize them and remind them that they are not free of HIV and AIDS even after being on treatment and that they would still get re-infected by other strains of HIV.