Structured Care Giver Literacy Sessions: A Path to 100% Viral Load Suppression Amongst Children Living with HIV, An Experience of Matata Hospital, Kasipul Sub-County, Homa Bay County.

Authors; 1Brian Korir, 1Millicent Owino, 1 Sally Keino 1Felix Ochieng, 2Raywe Fredrick, 2Christine Odieny, 2Willis Omwoyo, 3Millicent Ongidi

Matata Hospital, Homa Bay County1, Ngima Mogen2, 3Ministry Of Health

Corresponding Author: Brian Korir, Email: brianboit652@gmail., Phone: 0710978762

**Subtheme 7: Children Living with HIV (CLHIV)**

**BACKGROUND**

CLHIV lag in Viral Load (VL) suppression. They solemnly depend on their caregivers to give them antiretroviral. Caregivers have demonstrated significant capability to help in adherence once empowered. VL suppression is essential in reducing morbidity and mortality and this requires proactive collaboration between health care workers and caregivers. The viral load suppression among CLHIV has been at 63% which is below the UNAID target of 95%.

**Objective**

To evaluate the impact of structured caregiver literacy sessions on pediatric viral load suppression at Matata Hospital – A private facility in Homa Bay County.

**Methodology**

We abstracted data of CLHIV with valid VL from the NASCOP website between October 2021 to April 2022. 31 CLHIV, 11 had Low Detectable Level (LDL), 6 had between 50-199 copies/ml, 4 had between 200-999 copies/ml, 6 were above 1,000 copies/ml and 4 were new to care hence not eligible for VL. We assessed the caregivers’ characteristics in terms of age, sex, HIV status, VL suppression, education level, change of caregivers and alcohol uptake. The caregivers were engaged in biweekly focused group discussion and peer to peer sessions targeting on disclosure, barriers to adherence, nutrition and importance of VL testing. Descriptive analysis was performed to determine the age, sex, HIV status and education levels. A linear regression analysis was performed to determined degree of association between the caregiver characteristics and VL suppression of the CLHIV. A t-test of independence was done to estimate the difference in the means with null hypothesis H0: There is no significant difference in means of VL results in the pre and post study period vs alternative hypothesis H1: There is significant difference in means of VL results in the pre and post study period.

**Results**

3 of the caregivers were HIV negative while 28 were HIV positive. 28 were females and 3 males with a mean age of 35.48. 17 were primary school leavers, 10 went through secondary education and 4 went through tertiary education. There was 100% VL suppression among CLHIV with 23 LDL and 8 (50-199 copies). A linear regression analysis between the CLHIV VL, sex of caregiver, caregiver’s HIV status, caregiver’s VL, and change of caregiver indicates a weak positive correlation between the child’s low VL and the change of caregiver (0.187) and caregiver’s VL (0.167) respectively. Sex, (-0.47) HIV status (-0.166), and Alcohol abuse (-0.071) presents very weak negative correlation with the child’s VL status. A two sample t-test to compare the difference in the VLs pre and post study gave a p-value of 0.227 at α=0.05. We therefore reject the null hypothesis and accept the alternative hypothesis that there is significant difference in means in the pre and post study.

**Conclusion and recommendations**

There’s a weak correlation between caregiver’s education levels, sex, alcoholism and child’s low VL. Change of caregiver and caregiver’s low VL significantly contribute to a child’s low VL. The differences in the means from a t-test indicates that structured caregiver literacy session and continuous capacity building contributes to CLHIV VL suppression despite the dynamic characteristics of the caregivers.