Depressive symptoms and HIV infection in an aging Ugandan cohort

Jennifer Manne-Goehler[1], Bernard Kakuhikire[2], Alexander C. Tsai[3], Till W. Bärnighausen[4] , Samson Okello[2], Mark J. Siedner[2,5]

(1) Department of Medicine, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA; (2) Mbarara University of Science and Technology, Mbarara, Uganda; (3) Chester M. Pierce, MD Division of Global Psychiatry, Massachusetts General Hospital, Boston, MA; (4) Institute of Public Health, University of Heidelberg, Heidelberg, Germany; (5) Division of Infectious Diseases, Massachusetts General Hospital, Boston, MA

INTRODUCTION

There are limited data regarding the relationships between depression, engagement in HIV care and use of antiretroviral therapy (ART),

This study aims to characterize associations between HIV and depressive symptoms in a cohort of aging PLWH on ART and among age- and sex-matched, population-based comparators

METHODS

Design:
Ugandan Non-Communicable Diseases and Aging Cohort Study (UGANDAC) is a longitudinal cohort study of PLWH and HIV-uninfected comparators in southwest Uganda.

Data:
The Hopkins Symptom Checklist (HSCL) was used to screen for probable depression in PLWH, HIV-uninfected controls and a subset of PLWH (N=102) prior to ART.

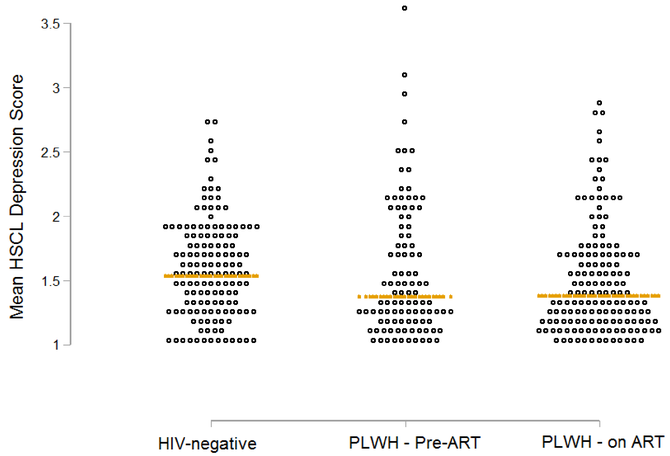
Analysis:
We estimated differences in depressive symptoms and scores by HIV status, comparing both pre-ART and post-ART depression scores to HIV-uninfected group.

RESULTS

Table 1. Demographic & health characteristics of PLWH on ART and HIV-negative participants in UGANDAC

	HIV-negative	PLWH on ART	p
Total	142	154	---
Age (mean)	51.9	52.0	0.854
Female (%)	47.9	47.4	0.934
Asset Index (% in top quartile)	13.6	35.1	<0.001
HSCL Score (Mean + 95% CI)	1.60 (1.54 - 1.67)	1.50 (1.44 - 1.57)	0.036
Depressed (%)	33.8	21.4	0.017

Figure 1. Mean HSCL Depression Score among uninfected, PLWH Pre-ART and PLWH on ART



Note: HIV-negative v. PLWH on ART: p=0.0361, HIV-negative v. PLWH Pre-ART: 0.5121, PLWH Pre-ART v. PLWH on ART: 0.0349

Table 2. Regression model demonstrating correlates of positive depression screen

	Multivariable	
	aPR (95% CI)	p-value
Age (years)	1.01 (0.99 - 1.03)	0.441
Female	2.02 (1.35 - 3.03)	0.001
Education (REF: <1 year)		
2-5 Years	0.79 (0.51 - 1.24)	0.313
6+ Years	0.76 (0.52 - 1.12)	0.169
Wealth Quintile (REF: Q1)		
Quantile 2	0.75 (0.48 - 1.16)	0.193
Quantile 3	0.87 (0.58 - 1.29)	0.479
Quantile 4	0.39 (0.18 - 0.88)	0.023
HIV+ on ART (REF: HIV-)	0.69 (0.48 - 0.99)	0.049

CONCLUSIONS

- Depression symptoms were similar among pre-treatment PLWH and HIV-negative comparators. However, after enrollment in ART care, PLWH had significantly lower depression scores.
- These data add to a growing body of literature demonstrating improved physical and mental health indicators among PLWH on ART in sub-Saharan Africa, compared to people without HIV.

ACKNOWLEDGEMENTS

This study was funded by the U.S. NIH R21 HL124712, P30AI060354, R24 AG044325, P30 AG024409, MGH Executive Committee on Research, Friends of a Healthy Uganda.