Depressive Symptoms in Two Prospective HIV Cohorts in Latin America: A Comparative Analysis by Sex

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IeDEA International epidemiology Databases to Evaluate AIDS

BACKGROUND

- Depression is common among people living with HIV (PWH) and disproportionately affects women
- Despite its impact on adherence, disease progression and mortality, mental health is not prioritized in HIV care in Latin America
- **AIM:** To evaluate sex differences in prevalence and 12- month trajectory of depressive symptoms (DS) and associated factors in CCASAnet cohorts

METHODS

Design
- Prospective analysis of CCASAnet Sentinel and Aging Research Network (ARN/SRN), 2021-2024

Inclusion criteria
- People with HIV (ARN ≥40y; SRN ≥50y) on ART ≥6 months and at least 1 Patient Health Questionnaire-9 (PHQ-9) assessment.

Outcomes
- Depressive symptoms prevalence at baseline and 12 months, defined as a PHQ-9 score ≥10
- Trajectory: Change of depressive symptoms over time

Covariates
- Demographics: sex, age, education, income, employment, marital status
- HIV parameters (CD4 count, viral load)
- Clinical: Comorbidities (hypertension, diabetes, hyperlipidemia, liver disease), substance and alcohol use (last 3 months)

Statistical analysis
- Prevalence and trajectory of depressive symptoms
- Logistic mixed-effects regression to assess factors associated with DS (age, income, marital status, education level, substance use, visit)

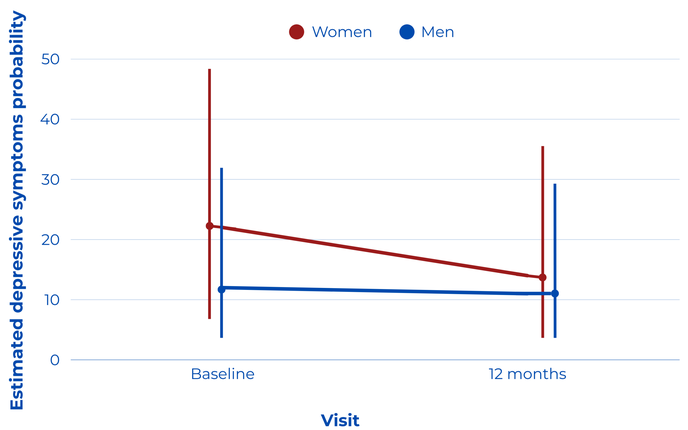
RESULTS

- **Baseline DS prevalence: Women 28.4% Men 17.46% (<0.01)**
- **At 12 months**: DS decreased in both sexes, with no significant differences at follow-up (19.5% vs 15.8% p=0.36)
- **Adjusted analysis showed a trend toward lower DS risk in men** (OR 0.48;0.95% CI 0.22-1.05 p=0.07) compared to women

Key messages

- **Depressive symptoms are frequent among PWH in Latin America (20%)**
- **Women had a higher prevalence at baseline of depressive symptoms compared to men**
- **Routine depression screening is needed particularly for women LWH**

Figure 1. Predicted probability of depressive symptoms by sex



Model adjusted for age= 56 years, income < 80 USD, marital status= married, education level= high, No reported drug use in the last 3 months with patient-level random effect set to the population average.

Table 1. Demographic, socioeconomic and clinical characteristics by sex

Characteristic \ Group	Total (n=581)	Men (n=426)	Women (n=155)	p value
Age, median (IQR)	54.7 (48.4–63.2)	53.7 (47.2–62.8)	56.9 (50.4–63.9)	0.015
Single, n(%)	308 (53.0%)	246 (57.7%)	62 (40.0%)	<0.01
Education: Less than primary, n(%)	89 (15.3%)	42 (9.9%)	47 (30.3%)	<0.01
Monthly income (<40 USD), n(%)	18 (3.1%)	6 (1.4%)	12 (7.7%)	<0.01
Alcohol use in the last 3 months, n(%)	540 (92.4%)	426 (95.1%)	135 (87.1%)	<0.01
Baseline PHQ-9, median (IQR)	4 (2-7)	4 (1-7)	5 (2-11)	<0.01
Baseline depression (PHQ-9 ≥ 10), n(%)	**119 (20.5%)**	**75 (17.6%)**	**44 (23.4%)**	**<0.01**
PHQ-9 at 12 months, median (IQR)	4 (1-7)	3 (1-7)	4 (1-8)	0.01
Depression at 12 months PHQ-9≥10, n(%)	91 (15.7%)	62 (15.8%)	29 (19.5%)	0.36

CONCLUSIONS

- Depressive symptoms are common among PWH in Latin America
- Women experienced a higher burden of depressive symptoms in these cohorts. In addition, they had less years of education, lower monthly income and were less likely to be married.
- Slight improvement of DS over 12 months may reflect a positive impact of engagement in medical care, despite socioeconomic disparities between men and women.
- Our findings underscore the need for targeted mental health screening and care, especially in women living with HIV.

Plain language summary: Depressive symptoms are common among people living with HIV in Latin America, especially among women. Routine depression screening and mental health care are needed, particularly for women living with HIV.

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