Mental health and treatment outcomes in adolescents living with HIV in West Africa

Poster-Q04

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BACKGROUND

- Adolescents living HIV (ALHIV) are facing high mortality rates due to poor adherence, which may be related to mental health disorders. We hypothesized that mental conditions could be worsened when the HIV-status is disclosed lately or under poor conditions.
- However, limited evidence exists on the burden of mental health among ALHIV in West Africa (WA) and its relationship with their HIV-status disclosure.
- Objective: To study the prevalence of depression and anxiety symptoms in association with antiretroviral treatment (ART) outcomes in ALHIV at inclusion in the OPTIMISE-AO trial in Burkina Faso and Cote d'Ivoire.

METHODS

- Study design and setting : cross-sectional study at enrollment in three study sites (CIRBA and CePReF in Abidjan, Cote d'Ivoire, and CHUYO in Burkina Faso) in the OPTIMISE-AO ANRS 12390 stepped-wedge interventional trial, nested within the IeDEA-West-Africa cohort; and aimed to improve HIV-disclosure and adherence practices in ALHIV, launched in 2021
- Inclusion criteria: assent of ALHIV aged 10-17 years, followed up in one of the IeDEA sites, with parents' written consent
- Study outcomes
  - Depression assessed using the Patient Health Questionnaire-9 (PHQ-9)
  - Anxiety assessed using the General Anxiety Disorder-7 (GAD-7) scale
  - Full HIV-disclosure defined when the adolescent names his/her illness as HIV/AIDS, and knows HIV modes of transmission
  - Viral Suppression: viral load<50cp/mL
- Analysis
  - Estimation of full HIV-disclosure, depression and anxiety rates at enrolment
  - Identification of factors associated with depression or anxiety and viral suppression (VS) using logistic regression

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In this West African pediatric cohort, adolescents living with HIV were mainly switched on Dolutegravir regimen, but HIV-disclosure rate was low; viral suppression remains suboptimal (78%), and worsened by mental health conditions

RESULTS

Table 1. Baseline characteristics of 313 adolescents living with HIV enrolled in the OPTIMISE-AO ANRS 12390 project (Burkina Faso & Cote d'Ivoire), March-October 2021

	Total N=317	Côte d'Ivoire N=218	Burkina Faso N=99	p
Median age (year, IQR)	14 (12-16)	14 (12-16)	15 (12-15)	0,01
Age > 12 years, %	85	88	79	0,04
Female, %	52	53	52	0,83
WHO stage 3/4, %	16	20	7	<0,01
Fully HIV-disclosed to, %	42	43	40	0,58
ART regimen, %				<0,01
2 NRTI+ 1 NNRTI	10	11	8	
2 NRTI + 1 INSTI (DTG)	74	67	90	
2 NRTI + 1 PI	16	22	2	
Mild to moderate depression	30	41	6	<0,01
Mild to moderate anxiety	20	25	8	
Mild to moderate depression or anxiety	34	30	20	<0,01
Virological suppression, %	78	81	72	0,07

RESULTS

Table 2. Factors associated with depression or anxiety combined in adolescents living with HIV at inclusion in the OPTIMISE-AO ANRS 12390 project (Burkina Faso & Cote d'Ivoire), 2021, logistic regression

Baseline characteristics	aOR 95% IC	p
Female vs Male	1,24 (0,72-2,11)	0,44
Not HIV disclosed to vs Yes	2,50 (1,41-4,43)	<0,01
Sibling living with HIV vs No	2,34 (0,99-5,46)	0,05
Age >12 years vs Age ≤12	1,60 (0,72-3,61)	0,25
Côte d'Ivoire vs Burkina Faso	8,94 (4,16-19,19)	<0,01

aOR : Adjusted Odds Ratio

Table 3. Factors associated with viral suppression in adolescents living with HIV at inclusion in the OPTIMISE-AO ANRS 12390 project (Burkina Faso & Cote d'Ivoire), 2021, logistic regression

Baseline characteristics	ORa (IC 95%)	p
Female vs Male	0,73 (0,38-1,23)	0,44
Mild/moderate depression or anxiety vs no	0,27 (0,13-0,59)	<0,01
Age >12 years vs Age ≤12	0,52 (0,20-1,35)	0,18
Burkina Faso Côte vs d'Ivoire	0,28 (0,13-0,60)	<0,01

aOR : Adjusted Odds Ratio

CONCLUSIONS

- In this West-African ALHIV cohort in Côte d'Ivoire and Burkina Faso in 2021
  - ALHIV were mainly switched on a DTG-based regimen (74%), reflecting a good penetration of DTG in these population after the 2019 WHO guidelines
  - Full HIV-disclosure rate remains low
  - Lack of full HIV-disclosure was significantly associated with worse mental health outcomes at inclusion
  - Viral suppression remains suboptimal and significantly worsened by mental health conditions
- Longer follow-up is needed to deeper explore the causal relationship between HIV-disclosure, mental health and VS
- Tailored interventions are urgently needed to support HIV-disclosure in good conditions, and address both depression or anxiety and ART treatment adherence among West African ALHIV