

Factors associated with ART adherence among HIV-positive adherence club members in Ekurhuleni Metropolitan Municipality, South Africa

P1-L12



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HIV-positive ART adherence club members with long adherence club memberships, single pill regimens, and comorbidities have a higher odds of becoming nonadherent to ART with dire consequences.

BACKGROUND

- Ekurhuleni Metropolitan Municipality in Gauteng Province has the second highest HIV prevalence (14.3%) of South Africa's Metropolitan Municipalities¹
- Antiretroviral therapy (ART) is not a cure for HIV but a lifelong treatment and **nonadherence to ART has serious consequences** e.g., mortality and increased viral transmission²
- **Adherence clubs (ACs) are an intervention** that enable people living with HIV/AIDS (PLWHA) to remain adherent to ART as follows:

Standard of Care (SOC) Model	Adherence Club (AC) Model
Every 2 months	2-3 month intervals / Every 6 months
PLWHA visit clinicians every two months to receive medical care (symptom screening, WHO staging, adherence counselling and weight testing) and ART distribution.	Clinically stable PLWHA attend meetings at 2 to 3-month intervals for distribution of pre-packaged ART, and counselling sessions facilitated by lay health workers. Club members visit clinicians for viral load testing and CD4 count measurement every 6 months.

- However, some ACs recently reported **suboptimal adherence** to ART^{3,4}

STUDY AIM: To determine factors associated with ART adherence among clinically stable HIV-positive individuals attending ART adherence clubs in Ekurhuleni Municipality, South Africa.

METHODS

- Participants of this **cross-sectional study** comprised 730 clinically stable HIV-positive adult members of ART adherence clubs in Ekurhuleni Municipality in February 2016.
- Self report data were collected using a paper-based questionnaire.
- The **outcome variable** was **self-reported ART adherence**, measured using 4 items measured on a 5-point Likert scale which were averaged and categorized into 5 ordinal levels.
- **Ordinal logistic regression** was used to identify variables significantly associated with ART adherence.
- In the final multivariable stepwise regression model age, ART regimen, comorbidity, and club membership duration were retained.

RESULTS

- **Sample description:** 58.2% females, 97.5% African, and median age was 39 yrs (IQR: 20 – 69)
- Participants became less adherent for each year that they were adherence club members (AOR = 0.8; 95% CI: 0.8 - 0.9; p<0.001) (Table 1)
- Compared to those on a single tablet regimen, participants on **combination ART were more adherent** (AOR = 1.8; 95% CI: 1.0 – 3.2; p=0.033). This result was unexpected.
- The presence of **comorbidities** was associated with decreased odds of ART adherence (AOR = 0.5; 95% CI: 0.3 – 0.8 ; p=0.05)
- **Age improved model fit** and was included in the final model (Likelihood Ratio = 7.32, p=0.026)
- Years on ART had a collinear relationship with club membership duration (**VIF: 16.76**) and was dropped from the model

RESULTS CONTINUED

Table 1: Factors associated with ART adherence amongst ART adherence club members in Ekurhuleni Metropolitan Municipality

FACTOR	n (%)	AOR (95% CI)	P-Value
Age (years)			
18 – 30	108 (14.8)	1	
31 – 50	558 (76.4)	1.6 (1.0 - 2.5)	0.073
> 50	64 (8.8)	0.8 (0.4 - 1.6)	0.583
Comorbidity			
No	651 (89.2)	1	
Yes	79 (10.8)	0.5 (0.3 - 0.8)	0.005*
ART regimen			
Single tablet regimen	601 (82.3)	1	
Double tablet regimen	40 (5.5)	1.3 (0.6 - 3.0)	0.489
Combination ART	89 (12.9)	1.8 (1.0 - 3.2)	0.033*
Median (IQR)			
Duration of club membership (years)	3.4 (1.3-4.1)	0.8 (0.8 – 0.9)	<0.001**

CONCLUSIONS

PLWHA who have been **adherence club members for long periods**, take **single pill regimens**, and have **comorbidities** have increased odds of reporting **low ART adherence**.

IMPACT: These findings can **enable adherence club optimization** by stakeholders by prioritizing **targeted counselling** and **early detection of treatment fatigue**, thereby increasing ART adherence.

RECOMMENDATIONS

- **Regularly screen** club members for **treatment fatigue** using short questionnaires.
- Provide intensive counselling for individuals identified.
- Suggest **lifestyle modifications** for with club members with **comorbidities**.

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ADDITIONAL KEY INFORMATION

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