

BACKGROUND

- One in five new HIV diagnoses in Sub-Saharan Africa occur among adolescent girls and young women (AGYW) ages 15-24 years old.¹
- Studies in Eastern and Southern Africa indicate that AGYW report suboptimal oral pre-exposure prophylaxis (PrEP) adherence and persistence.²⁻³
- Hope is linked to positive health outcomes including improved HIV treatment and quality of life among people living with HIV.⁴⁻⁵
- Less is known about the relationship between hope and biomedical HIV prevention use
- We assessed the relationship between hope for the future and oral PrEP willingness and adherence among African AGYW.
- **Hypothesis:** Higher hope scores will be associated with PrEP willingness and high adherence.



Young women with more hope for the future had higher willingness to use oral PrEP; however, hope for the future was not associated with PrEP adherence.

METHODS

DATA SOURCE AND SAMPLE

- HIV Prevention Trials Network (HPTN) 082 was an open-label, interventional, randomized trial of AGYW (aged 16–25 years) conducted in South Africa and Zimbabwe from October 2016 to October 2018.

MEASURES

- **Independent variable:**
 - Hope for the future⁶: 6 items, Likert scale (I totally disagree, disagree, agree, I totally agree, prefer not to answer) Range: 6-24, collected at baseline
- **Outcome variables:**
 - PrEP willingness⁷: 7 items, Likert scale (I totally disagree, disagree, neither disagree or agree, agree, I totally agree, prefer not to answer), Range: 6-30, collected at baseline
 - PrEP adherence: Dichotomous (high adherence= TFV-DP ≥700 fmol/punch, threshold based on iPrEX study⁸) in dry blood spots, collected at 3-, 6-, and 12-month follow-up
- **Control variables:** site, study arm

ANALYSES

- Linear regression to assess the relationship between hope for the future and willingness to use PrEP at baseline
- Generalized estimating equations to estimate risk ratios for the association between hope and high adherence at follow-up

RESULTS

TABLE 1. Participant Characteristics

Characteristic	Overall (n=451)
Age (Median, IQR)	21 (19, 22)
Education	
Primary	9 (2%)
Secondary	388 (86%)
College or University	54 (12%)
Study site	
Cape Town, South Africa	141 (31%)
Johannesburg, South Africa	162 (36%)
Harare, Zimbabwe	148 (33%)

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TABLE 2. Psychometric properties of Hope and PrEP willingness scales

Scale	M	SD	Median (Q1,Q3)	Chronbach's α
Hope	13.5	4.7	15 (10,18)	.88
PrEP willingness	15.9	6.7	16 (9, 22)	.86

- Overall, participants had moderate levels of hope for the future and willingness to use PrEP
- In the linear regression model, at baseline hope was positively associated with PrEP willingness ($\beta=0.62$, 95% CI: 0.50, 0.75).
- In the multivariable logistic model, hope **was not** significantly associated with high PrEP adherence (aRR=0.97, 95% CI: 0.93, 1.01) at follow-up.

CONCLUSIONS

- Hope for the future is associated with PrEP willingness, but not PrEP adherence.
- Combination interventions which provide counselling support AGYW's self-efficacy and future planning may increase willingness to use PrEP
- Further research is needed to examine resilience and other factors which may promote PrEP adherence among adolescent girls and young women.

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