

# Hoping to Adhere? Examining the Relationship Between Hope and PrEP Willingness and Adherence Among Adolescent Girls and Young Women Enrolled in HIV Prevention Trial 082

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## BACKGROUND

- One in five new HIV diagnoses in Sub-Saharan Africa occur among adolescent girls and young women (AGYW) ages 15-24 years old.<sup>1</sup>
- Studies in Eastern and Southern Africa indicate that AGYW report suboptimal oral pre-exposure prophylaxis (PrEP) adherence and persistence.<sup>2-3</sup>
- Hope is linked to positive health outcomes including improved HIV treatment and quality of life among people living with HIV.<sup>4-5</sup>
- 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 future<sup>6</sup> :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 willingness<sup>7</sup>: 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 study<sup>8</sup> )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

#### **TABLE 2.** Psychometric properties of Hope and PrEP willingness scales

Scale	Μ	SD	Median (Q1,Q3)	Chronbach's α
Норе	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.
- 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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