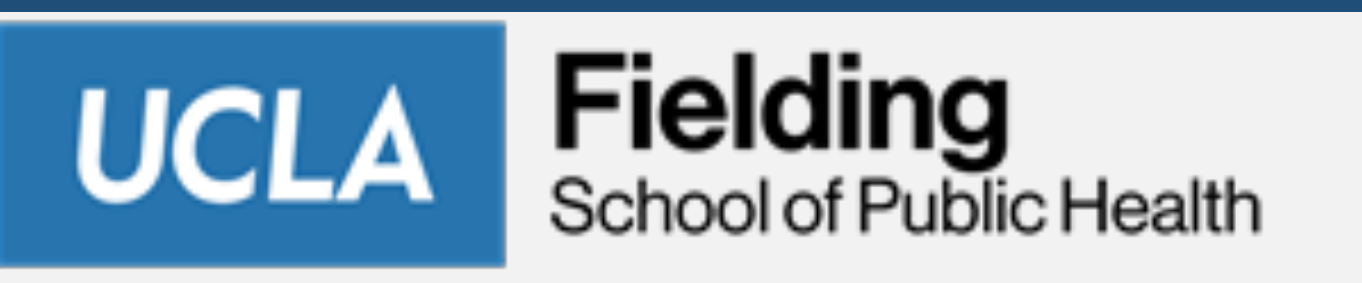


Alcohol use is associated with increased Pre-exposure Prophylaxis (PrEP) continuation and adherence among pregnant and post-partum women in South Africa

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BACKGROUND

- South African women experience high levels of alcohol use and incident HIV infection prior to and during pregnancy and postpartum periods.
- Oral pre-exposure prophylaxis (PrEP) is highly effective at reducing risk of HIV acquisition.
- There is evidence that alcohol use may be a barrier to optimal PrEP outcomes, but this relationship has not been explored among pregnant and breast-feeding women at high risk of HIV infection.
- To characterize the relationship between alcohol use and PrEP continuation and adherence in this population, we analyzed data from a prospective observational cohort of 1200 HIV-negative pregnant women enrolled at first antenatal care visit and followed through 12 months postpartum in Cape Town, South Africa.

METHODS

- We examined associations between alcohol use prior to pregnancy and our PrEP outcomes using the AUDIT-C and two thresholds: (1) report of any use (cutoff of >0); (2) hazardous alcohol use (cutoff of ≥3).
- Prep outcomes at 3 mo. FU:
 - PrEP continuation (ongoing receipt of PrEP prescription)
 - Self-reported PrEP adherence (missing <2 doses in past 7 days) and
 - Biomarker-confirmed PrEP adherence (presence of any tenofovir in blood)
- The analytic sample comprised of pregnant women who initiated PrEP at baseline and had not been censored at 3 months (n=943).
- We ran prospective multivariable logistic regression models adjusted for confounders that were identified a priori.

Women reporting alcohol use prior to pregnancy had greater odds of continuing and adhering to PrEP at follow-up. This was true using both cutoffs: any alcohol use and hazardous alcohol use.

RESULTS

- Median participant baseline age was 26 years [IQR 22-31] and median gestation age was 22 weeks [IQR 15-31].
- At 3-month follow-up visit, 41% were still pregnant.
- The same trend was observed when looking at associations between any alcohol use and PrEP continuation and adherence.

CONCLUSIONS

- While existing literature suggests alcohol use can serve as a barrier to PrEP care and adherence, among pregnant and postpartum women in South Africa who initiated PrEP, both any recent alcohol use and hazardous drinking were associated with higher odds of PrEP continuation and adherence.
- These findings suggest PrEP is an acceptable HIV prevention strategy in this high-risk population.

Associations between two measures of alcohol use in the past year prior to pregnancy at baseline and PrEP continuation and adherence at 3 months follow up (n=943)

	Yes (n=471)	No (n=472)	Odds Ratios and 95% Confidence Intervals
Any Alcohol Use (vs None)			
PrEP Continuation	290 (61.6%)	261 (44.7%)	1.03, 1.34, 1.74
PrEP Self Reported 7-day Adherence (Missed <2 doses)	208 (44.2%)	180 (38.1%)	1.00, 1.31, 1.71
Biomarker-Confirmed PrEP (Any TFV in DBS)	118 (25.1%)	98 (20.8%)	0.97, 1.33, 1.81
Hazardous Alcohol Use (vs Non-Hazardous)			
PrEP Continuation	204 (65.0%)	347 (55.2%)	1.16, 1.54, 2.06
PrEP Self Reported 7-day Adherence (Missed <2 doses)	146 (46.5%)	242 (38.5%)	1.07, 1.41, 1.87
Biomarker-Confirmed PrEP (Any TFV in DBS)	82 (26.1%)	134 (21.3%)	0.98, 1.35, 1.87

PrEP: Pre-exposure Prophylaxis; TFV: Tenofovir; DBS: Dried Blood Spot
 **adjusted for age, relationship cohabitation status, dwelling type and education level