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BACKGROUND

- Unhealthy alcohol use is a major contributor to viral non-suppression among persons living with HIV (PWH)
- It is unknown if brief behavioral interventions to reduce alcohol use can improve viral suppression among PWH with unhealthy alcohol use in sub-Saharan Africa

OBJECTIVES

- Compare the effectiveness of a brief, culturally-adapted skill-based alcohol counseling intervention with the standard of care for PWH and unhealthy alcohol use and a risk factor for viral non-suppression to:
 - Improve viral suppression
 - Reduce unhealthy alcohol use

METHODS

Study Population & Design:

- SEARCH SAPPHERE Alcohol (NCT 04810650) was an individually randomized controlled trial in 3 Ugandan and 5 Kenyan communities
- PWH ≥ 18 years who self-reported **unhealthy alcohol use** (Alcohol Use Disorders Identification Test-Consumption [AUDIT-C] ≥ 3 /female; ≥ 4 /male) and had:
 - Unsuppressed HIV viral load (≥ 400 copies/mL) in past 12 months OR
 - Missed visit(s) OR
 - Out of HIV care OR
 - New HIV diagnosis
- Randomized to:
 - Intervention** of in-person counseling sessions at baseline and 3 months with booster phone calls every 3 weeks in the interim with viral load and adherence counseling
 - OR**
 - Control** of brief advice on harmful effects of alcohol and safe levels of drinking and viral load feedback at their post-baseline regular clinic visit

Primary Outcome:

- Viral suppression (HIV RNA < 400 copies/mL) measured at week 24

Secondary Outcome:

- Unhealthy alcohol use, defined by:
 - AUDIT-C ≥ 3 /female; ≥ 4 /male prior 3 months OR
 - Alcohol biomarker, phosphatidylethanol (PEth), ≥ 50 ng/mL measured at week 24

Analytic Methods:

- Targeted Minimum Loss-Based Estimation (TMLE) compared 1^o and 2^o outcomes between arms

A RCT of a brief alcohol counseling intervention vs. control showed **no effects on viral suppression, but did reduce unhealthy alcohol use among PWH with unhealthy alcohol use and high risk of HIV viremia in East Africa**

RESULTS

- 400 adults living with HIV enrolled and randomized: 197 intervention, 203 control
 - 94% analyzed at week 24 (5% moved away from study area; 1 died)
- Viral suppression increased from 60% at baseline to 83% in intervention and 82% in control arms at week 24. No difference in viral suppression between arms: (aRR 1.01, 95% confidence interval [CI]: 0.93-1.10) at 24 weeks
 - Among PWH with baseline viral non-suppression (n=150), suppression 73% in intervention, 64% in control arms (aRR 1.15, 95%CI: 0.93-1.43)
- Unhealthy alcohol use declined from 98% at baseline to 73% in intervention, 84% in control (aRR 0.86, 95%CI: 0.79-0.94). Effects stronger in women than men (aRR 0.70, 95%CI 0.56-0.88)

Characteristics of participants

	Intervention (n=197)	Control (n=203)	Total (n=400)
Female, n (%)	60 (30)	71 (35)	131 (33)
Age, years, median [Q1, Q3]	37 [31,45]	37 [30,42]	37 [31,43]
Enrollment Criteria, n (%)			
Unsuppressed VL	70 (36)	71 (35)	141 (35)
Missed visit(s)	52 (26)	59 (29)	111 (28)
New to care	50 (25)	59 (29)	109 (27)
Re-engaging in care	25 (13)	14 (7)	39 (10)
Baseline VL > 400, n (%)	79 (40)	82 (40)	161 (40)
Baseline AUDIT-C score, median [Q1, Q3]	6 [4,8]	6 [4,8]	6 [4,8]
Baseline PEth (ng/mL), mean [95% CI]	492 [398-585]	481 [396-566]	486 [423-550]

RESULTS (cont.)

Comparison of HIV Viral Suppression and Unhealthy Alcohol use between arms at 24-weeks

	Intervention % (95% CI)	Control % (95% CI)	aRR (95% CI)
Viral suppression	83.3 (78.1-88.6)	82.4 (77.5-87.2)	1.01 (0.93-1.1)
Unhealthy alcohol use	72.9 (68-77.9)	84.4 (80.1-88.7)	0.86 (0.79-0.94)

SUMMARY

- In an RCT of 400 PWH with unhealthy alcohol use and risk for viral non-suppression, a brief alcohol intervention did not affect viral suppression at 24 weeks, but it did result in reduced alcohol consumption

CONCLUSIONS

- Brief alcohol interventions have the potential to improve the health of PWH in sub-Saharan Africa by reducing alcohol use, a significant driver of HIV and associated comorbidities

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