Alcohol reduction outcomes following brief counseling among adults with HIV in Zambia: A sequential mixed methods study

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Introduction

- Excessive unhealthy alcohol consumption is common in Zambia, particularly among persons living with HIV/AIDS (PLWHA) [1,2].

- The negative consequences of excessive alcohol consum.ption are enhanced in PLWHA due to their pre-existing immunocompromised state and increased risk of transmitting HIV to other people and acquiring opportunistic infections [3–5]. Furthermore, alcohol use among this population delays HIV diagnosis and can undermine adherence to antiretroviral (ARV) treatment) [6, 7].

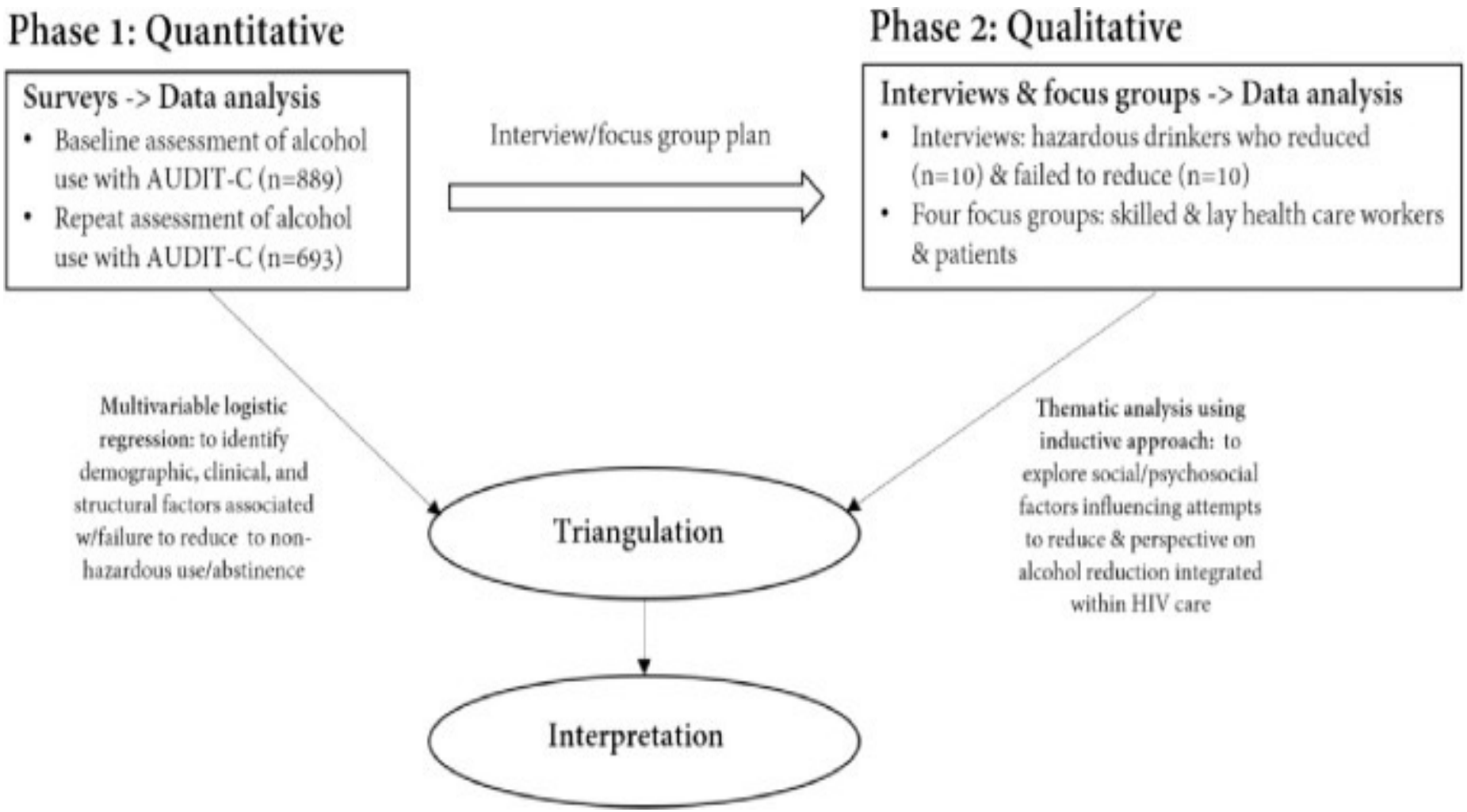
- A systematic review found only 14 studies that used an alcohol-reduction intervention to prevent HIV acquisition in Africa and the results of these studies were mixed [9].

- This study aimed to better understand alcohol consumption practices and determinants among PLWHA in urban Zambia and to characterize gaps in the management of unhealthy alcohol use at public HIV clinics in Zambia. The findings of this study will provide guidance for the Zambian Ministry of Health (MOH) to provide evidence-based alcohol reduction programs during standard HIV care.

Methodology

- Ethical approval was sought by the University of Zambia Biomedical Research Ethics Committee, Lusaka, Zambia, and the University of Alabama at Birmingham Institutional Review Board.
- A sequential explanatory mixed-method evaluation (see Fig 1) [12].
- From October 2013 to September 2015.
- Guided by the Andersen's Behavioral Model [17], which suggests that determinants of health behaviors include the healthcare environment, patient characteristics, the community, the societal context, and patient's need for health services [13].

Figure 1:


Phase 1: Quantitative
Surveys -> Data analysis
• Baseline assessment of alcohol use with AUDIT-C (n=889)
• Repeat assessment of alcohol use with AUDIT-C (n=693)
Interview/focus group plan
Phase 2: Qualitative
Interviews & focus groups -> Data analysis
• Interviews: hazardous drinkers who reduced (n=10) & failed to reduce (n=10)
• Four focus groups: skilled & lay health care workers & patients
Multivariable logistic regression: to identify demographic, clinical, and structural factors associated w/failure to reduce to non-hazardous use/abstinence
Thematic analysis using inductive approach: to explore social/psychosocial factors influencing attempts to reduce & perspective on alcohol reduction integrated within HIV care
Triangulation
Interpretation

Quantitative results

- 897 patients were enrolled (797 during the initial phase and an additional 100 with HBV coinfection).
- The present analysis included 693 (77.2%) cohort patients with non-missing AUDIT-C data at enrollment and at 1 year.
- A total of 204 participants were not included because of missing AUDIT-C data(15), loss to follow-up (n = 102), death (n = 57), or transfer out (n = 30) prior to 1 year.

- Age, sex, CD4+ count, and unhealthy alcohol use were similar between cohort participants included and excluded from this analysis ($P>0.05$).

- Within the analysis cohort, median age at enrollment was 34.9 years, 379 (54.8%) were women, and median baseline CD4 count was 234 cells/mm^3. Unhealthy alcohol use was reported at baseline by 280 patients including 36.1% of women and 63.9% of men ($P<0.01$).

Qualitative results

The main themes resulting from the qualitative analysis were related to drinking norms and generational changes, motives for alcohol drinking among PLWHA, drinking alcohol and poor HIV adherence, and insufficient support available at HIV clinics to reduce alcohol consumption.

1) Drinking as a cultural norm and changing generational normative behavior
According to focus group discussion (FGD) participants, alcohol consumption is a societal and cultural norm in urban Zambia.
"People here drink a lot of alcohol. […] I don't feel anything [about being heavy drinker] because there are a lot of people who drink alcohol."–Female PLWHA (FLWHA), unhealthy drinking

Mixed method integration of findings

- Contextually, alcohol consumption is common in Zambia.
- Older participants also reported excessive drinking in younger people as a generational change.
- At the individual level, unhealthy consumption of alcohol was common among PLWHA, particularly men, identified in both quantitative and qualitative data.
- Younger people were also less likely to cut down on alcohol use after HIV diagnosis.

Strengths	Limitations
the real world and prospective longitudinal nature of the HIV cohort	Non-randomized
Integration of qualitative and quantitative data to understand longitudinal alcohol use patterns	No characteristics of standard care alcohol counseling
Possibility of relevance in similar Sub-Saharan Africa settings	Self-reports

Conclusion

- Unhealthy alcohol use was widespread among PLWHA who initiated ART in urban Zambia. After ART start there was an overall moderate reduction of alcohol use; however, nearly 1 in 4 had persistent unhealthy alcohol use possibly due to unaddressed mechanisms and motivators to drink and low clinic staff capacity to recognize and address alcohol use in patients.
- Integrated, scalable, and evidence-based approaches to screening for and managing unhealthy alcohol use are needed in SSA to help address alcohol's negative impact on the HIV epidemic.

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Thank you for your attention!