Alcohol Use and Sexual Risk Behavior in Young Women in Rural South Africa

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Background/Rationale

• HPTN 068: Phase III research study to determine whether providing cash transfers to young women and their household, conditional on school attendance, reduced young women’s risk of acquiring HIV. Between March 2011 and December 2012, 2533YW that were enrolled in high-school in Rural South Africa were included.

• Alcohol use increases high-risk sex behavior and is popular among young people
  - Female adolescents in South Africa present extremely high risk of HIV acquisition and high risk of alcohol use
  - Young women (aged 15–24 years) account for 26% of new HIV infections in the region
Project Objectives/Aims

Aim 1
To assess the association of alcohol use and HIV incidence in a cohort of school age female adolescents in rural South Africa

Aim 2
To describe alcohol use patterns and identify those that increase the risk of engaging in risky sexual behavior

Aim 3
To explore the association between male sex partner’s drinking behavior and women’s alcohol use
Project Objectives/Aims

Aim 1
Cox Proportional Hazards Model

- Alcohol → HIV
  - Adjusted by age and school attendance

Aim 2
Logistic Regression Model

- Alcohol Drinking Pattern → High-Risk Sexual Behavior
  - Ever
    - At alcohol serving venue
    - Partner gives alcohol
    - They buy alcohol
    - Heavy drinking
  - Inconsistent condom use
    - Partner > 5 years older
    - Transactional sex
    - High at sex
    - Multiple partners

Aim 3
Cross sectional analysis

- Partner’s Alcohol → YW’s Alcohol
Results

1. Crude HR: 1.60 (95%CI: 1.09, 2.62)
   Adjusted HR: 1.39 (95%CI: 0.88, 2.14)

2. Drinking Pattern
   - Alcohol (ref = 0): Crude OR = 3.45 (95% CI: 2.97 - 4.00)
   - Going to Shabeen (ref = 0): Crude OR = 7.21 (95% CI: 5.96 - 8.73)
   - High attendance (ref = 0): Crude OR = 0.38 (95% CI: 0.31 - 0.47)
   - Age: Crude OR = 1.44 (95% CI: 1.41 - 1.48)
   - aOR: Alcohol (ref = 0) = 3.06 (95% CI: 2.53 - 3.72)
   - Going to Shabeen (ref = 0) = 2.49 (95% CI: 1.41 - 4.37)
   - High attendance (ref = 0) = 0.54 (95% CI: 0.43 - 0.67)
   - Age = 1.4 (95% CI: 1.36 - 1.45)

3. Partner’s Alcohol
   - Crude RD: 0.21 (95% CI: 0.16, 0.25)
   - Adjusted RD: 0.13 (95% CI: 0.08, 0.18)

4. YW’s Alcohol

Alcohol → HIV

Drinking Pattern

Any High-Risk Sexual Behavior

Partner’s Alcohol

YW’s Alcohol
Discussion

• While there seems to be an association between alcohol use and HIV infection, this difference was not shown to be significant in the adjusted model. Probably regarding to sample size.

• Drinking alcohol, receiving alcohol from partner, and going to alcohol serving venues seem to be associated to high-risk sexual behavior.

• When partners drink alcohol, young women have higher risk to drink alcohol too.
• Moving beyond this study, alcohol use in YW could be a target for HIV prevention interventions.

• These interventions should address not only the YW behavior, but also take into consideration their context, the places where they go and their partners among other things.
Thank you

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