The Impact of Syndemic Problems on Sexual and Medical Health Behaviors in HIV-positive Patients in Care in Brazil, Thailand, and Zambia

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Introduction

- Treatment as Prevention works
- However, not for everyone:
  - Depression
  - Substance use
  - Additional psychosocial problems
- Compared to primary HIV prevention, there is limited data on the additive effects of these syndemics within HIV care
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• A multi-site longitudinal observational cohort study of high risk HIV-infected individuals \((n = 749)\) in HIV care

1. Brazil (n=263)
   - 64 heterosexual men
   - 100 MSM
   - 99 heterosexual women

2. Thailand (n=300)
   - 100 heterosexual men
   - 100 MSM
   - 100 heterosexual women

3. Zambia (n=186)
   - 86 heterosexual men
   - 100 heterosexual women

Potential syndemic indicators:
• Polydrug use
• Stimulant use
• Depressive symptoms
• Alcohol use
• Fear of discrimination or social consequences
Aim and Analysis

Aim

• Examine the degree to which syndemic problems are related to:
  
  1. **Nonadherence to ART**
  2. Condomless sex (both any condomless sex and serodiscordant condomless sex)
  3. Serodiscordant condomless sex in individuals who are either not on ART or report ART nonadherence

Analysis

• Syndemic score reflecting the summative count of assessed psychosocial problems – Representing syndemic scores of 0, 1, 2, and 3 or more

• A logistic regression model, fitted via generalized estimating equations (GEE) was used to study the association between self-reported adherence and the syndemic score while adjusting for other covariates
Distribution of ART adherence

- High syndemic scores coincide with lower proportion of adherence regardless of the visit number.
Adjusted odds ratio for ART adherence by study groups
Results from logistic regression model

- Among heterosexual men and women, adherence is lower for individuals in groups with higher syndemic scores
  - This pattern is not evident in MSM
• Adherence is lower for individuals in groups with higher syndemic scores
Summary

• Findings suggest that increased co-occurrence of syndemic problems are associated with reduced ART adherence in people with HIV, but may be different across risk groups and country.

• Understanding syndemics among people with HIV by risk group will better inform culturally-relevant integrated models of HIV care.

• More research is needed to examine the degree to which syndemic problems are related to condomless sex in these groups.
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