Concurrent Sexual Partnering Among Heterosexually Active Homeless Men: Behavioral Health and Social Normative Influence

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Disclosure Statement

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Concurrent sexual partnering

• Increased risk for HIV and other STIs

  – facilitates more rapid disease transmission than monogamous, sequential sexual relationships
  – individuals in such relationships are often unaware of partner’s concurrency
  – many of those engaging in sexual concurrency report having unprotected sex with their partners
Heterosexually active homeless men

- Men’s heterosexual behavior plays a key role in the HIV epidemic
  - 80+ % of women with HIV/AIDS infected thru sex with men

- Homeless persons are at higher risk of HIV/AIDS
  - HIV/AIDS: increasingly a disease of impoverished persons
  - Higher rates of risky behaviors due to subsistence living and reduced access to services
  - Higher rates of alcohol and drug use; substance use is a risk factor for HIV/AIDS
Skid Row

Downtown, Los Angeles


Behavioral Health & Social Normative Influence

Behavioral health:

• Sexual concurrency is more prevalent among those who use alcohol and other substances ¹,²

• Depression and PTSD are associated with sexual risk
  – Depressed young adults are more likely to have multiple sex partners ³
  – PTSD symptoms (detachment, perceiving foreshortened future) associated with unprotected sex and sex trade among low-income women ⁴ and OEF/OIF veterans ⁵
Behavioral Health & Social Normative Influence

Social normative influence – social networks:

• Social norms theory: The perceived behaviors of persons in one’s social network may influence one’s own behaviors 6-8

• Risky behaviors perceived in the social network have been associated with risky behaviors of homeless women, 9 homeless youth 10
Purpose and Hypotheses

• Address gaps in our understanding of sexual risk behavior – concurrency – among homeless men

• Poor behavioral health and sexual risk in social networks will be associated with a higher rate of concurrency
Methods

• We focused on Los Angeles’ Downtown Central City East (Skid Row)

• Probability sampling to achieve a representative sample of heterosexually active homeless men

• Men were screened and sampled from 13 meal lines: 5 breakfasts, 4 lunches, 4 dinners at 5 different organizations

• Sampling weights applied in all analyses to correct for departures from a proportionate-to-size stratified random sample
Participants

• Eligibility criteria:
  – age 18 or older
  – homeless past 12 months (i.e., stayed at least one night in a place like a shelter, abandoned building, vehicle, or outdoors because they didn’t have a home to stay in)
  – vaginal or anal sex with a woman in past 6 months
  – able to complete an interview in English

• Sample size = 305 homeless men
  – 338 eligibles out of 670 men screened (50.4% eligible)
  – 320 eligibles agreed to be interviewed:
    • 7 left before the interview was completed or refused to complete
    • 4 could not complete network portion of interview
    • 4 were later found to be repeaters
Structured interviews

- IRB approved -- USC and RAND
- Conducted July through October 2010
- Computer-assisted personal interviews; EgoWeb software (http://egoweb.github.com)
- Interviews lasted 83 minutes on average
- Men were paid $30 for participation
Social Network Measures

• Egocentric – personal network

  – Respondents provided the first names of 20 individuals that they know, who know them, and that they had contact with (face-to-face, phone, mail, internet) in the past year

  – Respondents were asked questions about each of their network members (alters):
    • Types of alters: sex partners, relatives/family, etc.
    • Behaviors of alters: drink, use drugs, engage in risky sex, provide support to the respondent
    • Alter-to-alter contact (network structure: density)
Concurrency Measure

• Determined through elicitation of sex partners they had during the previous 6 months (female or male; sex = vaginal or anal)

• For the four most recent sex partners: “Around the time that you last had sex with [first name], were you also having sex with any other people?”

• Concurrent sexual partnering during the past 6 months = “yes” (1) if any, vs. “no” (0)
Behavioral Health Measures

- Depression: 3-item screener for past 12-month depressive disorder, based on DIS and CES-D \(^{11}\)

- PTSD: 4-item Primary Care PTSD Screen \(^{12}\)

- Binge drinking: 5 or more drinks within 2 hours, past 6 months \(^{13}\)

- Hard drug use past 6 months \(^{14}\)

- Injection drug use, lifetime
### Respondent Background Characteristics (N=305)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (mean, se)</td>
<td>45.6 (10.3)</td>
</tr>
<tr>
<td>Race/ethnicity (%)</td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>71.7</td>
</tr>
<tr>
<td>Hispanic</td>
<td>10.4</td>
</tr>
<tr>
<td>White</td>
<td>11.5</td>
</tr>
<tr>
<td>Other or multi-racial</td>
<td>6.3</td>
</tr>
<tr>
<td>Education (at least HS or GED) (%)</td>
<td>73.3</td>
</tr>
<tr>
<td>Currently married (%)</td>
<td>6.1</td>
</tr>
<tr>
<td>Jail/prison/parole past 6 months (%)</td>
<td>37.3</td>
</tr>
<tr>
<td>Total number of sex partners past 6 months (mean, se)</td>
<td>3.7 (.29)</td>
</tr>
<tr>
<td>Self-reported HIV positive (told by health professional, or have “reason to believe,” they are infected) (%)</td>
<td>7.42</td>
</tr>
</tbody>
</table>
## Rate of Concurrency

| Concurrent sexual partnering during the past 6 months (%) | 39.2 |
Behavioral Health and Networks (N=305)

<table>
<thead>
<tr>
<th>Mental health (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTSD</td>
</tr>
<tr>
<td>Depression</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance use past 6 months (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binge drinking</td>
</tr>
<tr>
<td>Hard drug use</td>
</tr>
<tr>
<td>Injection drug use (ever)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Networks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any alters engage in risky sex (%)</td>
</tr>
<tr>
<td>Alters who drink, use drugs (mean, se)</td>
</tr>
<tr>
<td>Total network density (mean, se)</td>
</tr>
<tr>
<td>Risky sex ingroup density (mean, se)</td>
</tr>
<tr>
<td>Substance use ingroup density (m, se)</td>
</tr>
</tbody>
</table>
# Multivariate binomial logistic regression (N=305)

<table>
<thead>
<tr>
<th></th>
<th>OR (95% CI)</th>
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</thead>
<tbody>
<tr>
<td><strong>Mental health</strong></td>
<td></td>
</tr>
<tr>
<td>PTSD</td>
<td>2.3 (1.0-5.1) *</td>
</tr>
<tr>
<td>Depression</td>
<td>0.9 (0.4 -2.0)</td>
</tr>
<tr>
<td><strong>Substance use past 6 months (%)</strong></td>
<td></td>
</tr>
<tr>
<td>Binge drinking</td>
<td>0.8 (0.4 - 1.7)</td>
</tr>
<tr>
<td>Hard drug use</td>
<td>2.4 (1.1 -5.6) *</td>
</tr>
<tr>
<td>Injection drug use (ever)</td>
<td>2.4 (0.9-6.5)</td>
</tr>
<tr>
<td><strong>Networks</strong></td>
<td></td>
</tr>
<tr>
<td>Any alters engage in risky sex</td>
<td>3.7 (1.5 -9.3) *</td>
</tr>
<tr>
<td>Alters who drink, use drugs</td>
<td>1.0 (1.0 -1.1)</td>
</tr>
</tbody>
</table>

Variables selected for regression were those associated with concurrency at p < .10 in bivariate analyses. Multivariate analyses controlled for background characteristics.

* p < .05
Summary

• PTSD is associated with concurrency -- to our knowledge, this is the first study to report this association

• Hard drug use is associated with concurrency, consistent with research in other populations 15,16

• Risky sex in the network is associated with concurrency, consistent with social norms theory
Conclusions

• Address mental health and substance use disorders

• Employ evidence-based practices to reduce sexual risk behaviors within programs that serve homeless men

• Larger social context surrounding homeless men is important
Conclusions

• Persons entrenched in poverty have limited options for changing their social or physical surroundings

• Qualitative research documents the challenges of having intimate relationships while homeless \(^{17}\)

• Other research has shown that HIV risk behaviors are reduced when housing status improves \(^{18}\)

• Safe, permanent, supportive housing is a key

2. www.weingart.org/image_galleries


