Improvements in HIV-related outcomes among homeless HIV patients using an intensive trauma informed case-management based intervention

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Conflict of Interest Disclosure

S. Pasalar, N. Miertschin, and C. Flash report receiving program and research grants from Gilead Sciences for work unrelated to this project.

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Background

- Homeless and unstably housed persons with HIV infection often struggle with retention in HIV care.
- Common barriers to retention include substance use, untreated mental health disorders, and unmet needs, all of which are common in the homeless.
- Trauma Informed Care is a strengths-based framework grounded in an understanding of the impact of trauma to build a sense of control and empowerment (Hopper, Bassuk & Olivet, 2010).
- A trauma informed care approach can potentially be used to address barriers and improve retention.
Objectives

• Supported by the HRSA-funded Special Projects of National Significance (SPNS) Program, we developed and evaluated a trauma-informed intensive case-management intervention for homeless persons living with HIV in Houston, TX

• Deployed in a single-arm observational study

• Goal of present analysis is to understand relationships between intervention contacts and housing status and outcomes, i.e., viral load suppression and engagement in HIV care
Methods

- Study enrolled between September 2013 and February 2016 at Thomas Street Health Center (TSHC), Houston, TX
- Study eligibility criteria:
  - Confirmed HIV infection
  - Age 18 years or older
  - Able to provide informed consent
  - Literally homeless or unstably housed
  - Any of the following:
    - Newly diagnosed or transferring to TSHC
    - Out of HIV primary care during the past 6-months
    - VL > 1000
Intervention

• Strengths-based, trauma informed care
  – Case management staff elicited information on past trauma and worked to empower patients through goal setting and individualized support

• Intensive case management
  - Direct handoffs to providers
  - Attend appointments with patients
  - Provide assistance with documentation and paperwork
  - Assist patients with navigating locally available services for homeless and HIV-infected persons
  - Advocate for clients in care sites and with service providers
  - Outreach visits to intervene with clients in their environment
  - Care coordination between homeless healthcare providers and HIV care providers
Data Sources

• Comprehensive in-person needs assessment conducted by intervention staff at baseline
• Encounter data collected for every contact (in-person or by telephone) with each participant
• Electronic medical record review
• Clinic administrative data
Process Measures

• Housing: Score assigned using a 7-point scale (0=permanent housing to 6=street homeless) at baseline and each intervention encounter

• Number of contacts with participant by intervention staff, averaged per month of follow-up
Primary Outcomes

• Engagement in care: attending at least one HIV primary care clinic appointment within 6-months after enrollment

• Viral load suppression: VL<200 within 12-months following enrollment
Analysis

- Examined housing score and number of contacts with intervention staff over follow-up period
- Examined change in VL suppression and engagement in care pre/post intervention
- Determined if mean housing score in follow-up differed:
  - for persons who were suppressed versus not suppressed
  - for persons who were engaged versus not engaged
- Determined if mean number of contacts per month in follow-up differed:
  - for persons who were suppressed versus not suppressed
  - for persons who were engaged versus not engaged
Results

- Total enrolled: 157 patients (65% of 239 eligible)
- Demographics
  - 75% Male
  - 68% Black, 20% White, 11% Latino
  - 69% street homeless, 31% unstably housed
- HIV status at entry (eligibility criterion)
  - 62% out of care > 6 months
  - 19% new to Harris Health System
  - 11% VL >1000
  - 8% new HIV diagnosis
Services Provided by Intervention

• Of those who needed the service, the following services were received:
  – 94% Referral to substance use treatment
  – 93% Referral to mental health provider
  – 89% Housing assistance
  – 48% Peer mentoring
  – 29% Cell phone assistance
  – 17% Medication delivery
Engagement in Care and VL Suppression in Follow-up

**Percent**

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<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
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<tr>
<td>VL Suppressed P&lt;0.01</td>
<td>34</td>
<td>56</td>
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<tr>
<td>Engaged in care P&lt;0.01</td>
<td>39</td>
<td>74</td>
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No correlation between number of contacts per month and baseline VL suppression or pre-intervention engagement in care.
Housing Scores in Follow-up

- Improved from 4.1 (SD 1.5) at enrollment to 2.5 (SD 2.0) in follow-up (p<0.001)
- Significant variability in housing score over time
  - Example of housing scores for three patients:
Best Housing Score in Follow-up

- VL Suppressed: P < 0.001
- Engaged in care: P < 0.001

Lower housing score is better
Limitations

• Not all participants have completed 12 months of follow-up
• Since 9 in 10 participants who needed it received assistance with housing, substance use and mental health, we could not conduct meaningful analyses on those process factors
• Observational data
• Last observed housing status was carried forward, but unobserved change in status is possible
Discussion

• Housing score improved overall, but was highly unstable at the level of the individual participant
• More contacts with case management and social services staff per month and improved housing status were associated with improved VL suppression and engagement in care
• Overall improvement in outcomes for this challenging population is encouraging but their VL suppression still lags behind the overall clinic population’s VL suppression
Conclusions

• Intensive trauma informed case management efforts were associated with improvements in VL suppression and engagement in care

• Continued efforts are needed to support homeless clients in addressing unmet needs in conjunction with HIV clinical care
Acknowledgements

- 157 Participants

- Intervention Team

- Research Coordinators: Tanisha Darko, Sophie Minick, Elizabeth Soriano

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- Institutions:
Housing scale

- 6: living on the street, unsheltered
- 5: squatting, in abandoned building, car
- 4: emergency shelters, moving unstably from place to place, no place of usual residence
- 3: insecure housing with family, friends
- 2: housed in substance use facility for homeless
- 1: transitional housing for up to 24 months
- 0: stably and permanently housed