Intensive Trauma-informed Case Management Intervention to Improve HIV-related Outcomes in Homeless HIV Patients

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Background
- HIV management continues to be a challenge in unstable housed people living with HIV (PLWH)
- Mental health issues, substance abuse, competing priorities/needs, transportation, and stigma
- Goal of our program was to build a new model to provide HIV care for homeless PLWH
- Our study population included:
  - Confirmed HIV infection
  - Age 18 years or older
  - Literally homeless or unstably housed
  - Able to provide informed consent
  - Any of the following
    - Newly diagnosed or transferring to TSHC
    - Out of care: no HIV primary care visit in last 6 m
    - HIV viral load (VL) > 1000 c/mL

Intervention
- Trauma-informed intensive case-management intervention for homeless PLWH at Thomas Street Health Center (TSHC) in Houston, TX
- Intervention focused on addressing primary needs:
  - Housing
  - Engagement in HIV care
  - Substance abuse/mental health treatment
- Other unmet needs were addressed after the primary needs were addressed
- Client goals were also set to create a partnership and buy-in
- Other service were available as needed, including:
  - Cell phone assistance
  - Peer mentoring
  - Medication delivery
  - HIV care at shelter
- Program staff:
  - 3 Medical Case Managers and Social Workers
  - 1 Service Linkage Worker
  - All had prior experience with homeless populations
- Client encounters:
  - Frequent client encounters upfront with a goal of graduating clients into standard care
  - No limit on number of encounters with program staff – based on need
  - Program evaluation component: Baseline and follow-up surveys, qualitative interviews

Change an intervention:
- Trauma-informed case management
- Housing and care integrated
- Trauma-informed care:
  - Case management
  - Housing and support
  - Mental health support

Results
- A total of 299 homeless PLWH were approached between September 2013 and February 2016. It was determined that 239 patients met the eligibility criteria and 157 homeless PLWH agreed to participate in the study and were enrolled.

Demographics of enrolled patients and services provided by the intervention

<table>
<thead>
<tr>
<th>Gender</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>37</td>
<td>24</td>
</tr>
<tr>
<td>Male</td>
<td>118</td>
<td>75</td>
</tr>
<tr>
<td>Transgender</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black or African-American</td>
<td>106</td>
<td>68</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>White</td>
<td>32</td>
<td>20</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Housing Status</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Homeless</td>
<td>109</td>
<td>69</td>
</tr>
<tr>
<td>Unstably Housed</td>
<td>47</td>
<td>30</td>
</tr>
<tr>
<td>Fleeing Domestic Violence</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Out of care &gt; 6 months</td>
<td>97</td>
<td>62</td>
</tr>
<tr>
<td>New to Harris Health System 30</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>VL &gt;1000 c/mL</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>New HIV diagnosis</td>
<td>13</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service</th>
<th>#</th>
<th>Denominator*</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Referral</td>
<td>131</td>
<td>149</td>
<td>88%</td>
</tr>
<tr>
<td>Cell Phone Assistance</td>
<td>21</td>
<td>73</td>
<td>29%</td>
</tr>
<tr>
<td>Peer Mentoring</td>
<td>48</td>
<td>101</td>
<td>48%</td>
</tr>
<tr>
<td>Medication Delivery</td>
<td>15</td>
<td>86</td>
<td>17%</td>
</tr>
<tr>
<td>Mental Health Referral</td>
<td>128</td>
<td>137</td>
<td>93%</td>
</tr>
<tr>
<td>Substance Abuse Referral</td>
<td>130</td>
<td>138</td>
<td>94%</td>
</tr>
<tr>
<td>HIV Care at Shelter</td>
<td>23</td>
<td>62</td>
<td>57%</td>
</tr>
<tr>
<td>ANY of the above services</td>
<td>147</td>
<td>151</td>
<td>97%</td>
</tr>
<tr>
<td>Emergency bed at shelter</td>
<td>24</td>
<td>37 episodes, 245 nights</td>
<td></td>
</tr>
</tbody>
</table>

* All percentages are among patients who report having a need

Comparison of VL suppression, engagement in care, and housing score before and after study enrollment

Viral Suppression
- Baseline compared to next 12 months, p<0.01
- HIV PCP visit in 6 months before and 6 months after enrollment, p<0.01

Engagement in Care
- Before: 0.34
- After: 0.61
- p<0.05

Best Housing Score
- Before: 4.7
- After: 2.3
- p<0.01

Most Recent Housing Score
- Before: 4.7
- After: 2.3
- p<0.01

Comparison of best housing scores between patients who achieved VL suppression/re-engagement in care and those who did not

<table>
<thead>
<tr>
<th>VL Suppressed</th>
<th>Engaged in care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NO</strong></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td>2.0</td>
<td>3.1</td>
</tr>
<tr>
<td>2.0</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Example of housing scores over time for three patients:

Qualitative Results
- 18 participants provided qualitative feedback on their experiences in the program
- Participants expressed the importance of provider support and staff attitudes
- Many discussed their preference for TSHC over homeless shelters. The prominent theme was that participants were referred to TSHC by homeless shelter providers, and subsequently they are more comfortable continuing care at TSHC

• “The people that work here, they make you feel like you’re a person. They don’t look at you with their nose down, or like okay, you’re different from them, or they’re better than you are. Just because we have HIV, it doesn’t mean that. They treat us the same as they want to be treated, and they treat us with very much, much, much the utmost respect, and that’s some of the good things about Thomas Street Clinic, etc.”

• “Yes, Thomas Street connected me to every successful program that I’m in. Thomas Street changed my life. Thomas Street is sustaining my life honestly. I never thought about it like that until just now, but they are sustaining my life.”

Successes and Challenges
- Successes
  - Patient Outcomes
  - VL suppression rate improved by 79%
  - Engagement in care rate improved by 92%
  - Housing score improved by 45%
  - Clinic culture
    - Greater cooperation among TSHC clinicians and staff in delivering care to the homeless
    - Better understanding of homeless needs
  - Improved relationships between TSHC and homeless programs
    - Healthcare for the Homeless Program, Harris Health
    - Houston Police Homeless Outreach Team (HOT)
    - Several homeless service providers and shelters, including Salvation Army
    - Accreditation
      - TSHC and three shelter-based clinics affiliated with the Healthcare for the Homeless program are now certified Level 3 Patient-Centered Medical Homes (PCMH)
  - Challenges
    - Significant time is required beyond usual case management to address complex patient issues
    - Difficult to find and maintain stable housing for patients with untreated substance use or mental health issues
    - Staff turnover

Sustainability
- Stronger Partnerships between TSHC and:
  - Healthcare for the Homeless Program
  - Houston Ryan White Planning Council
  - Coalition of Houston Homeless Providers/Harris County
  - Houston Police Department – Homeless Outreach Team
  - Houston Healthcare for the Homeless
  - Shelters and homeless service providers

Acknowledgments
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