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

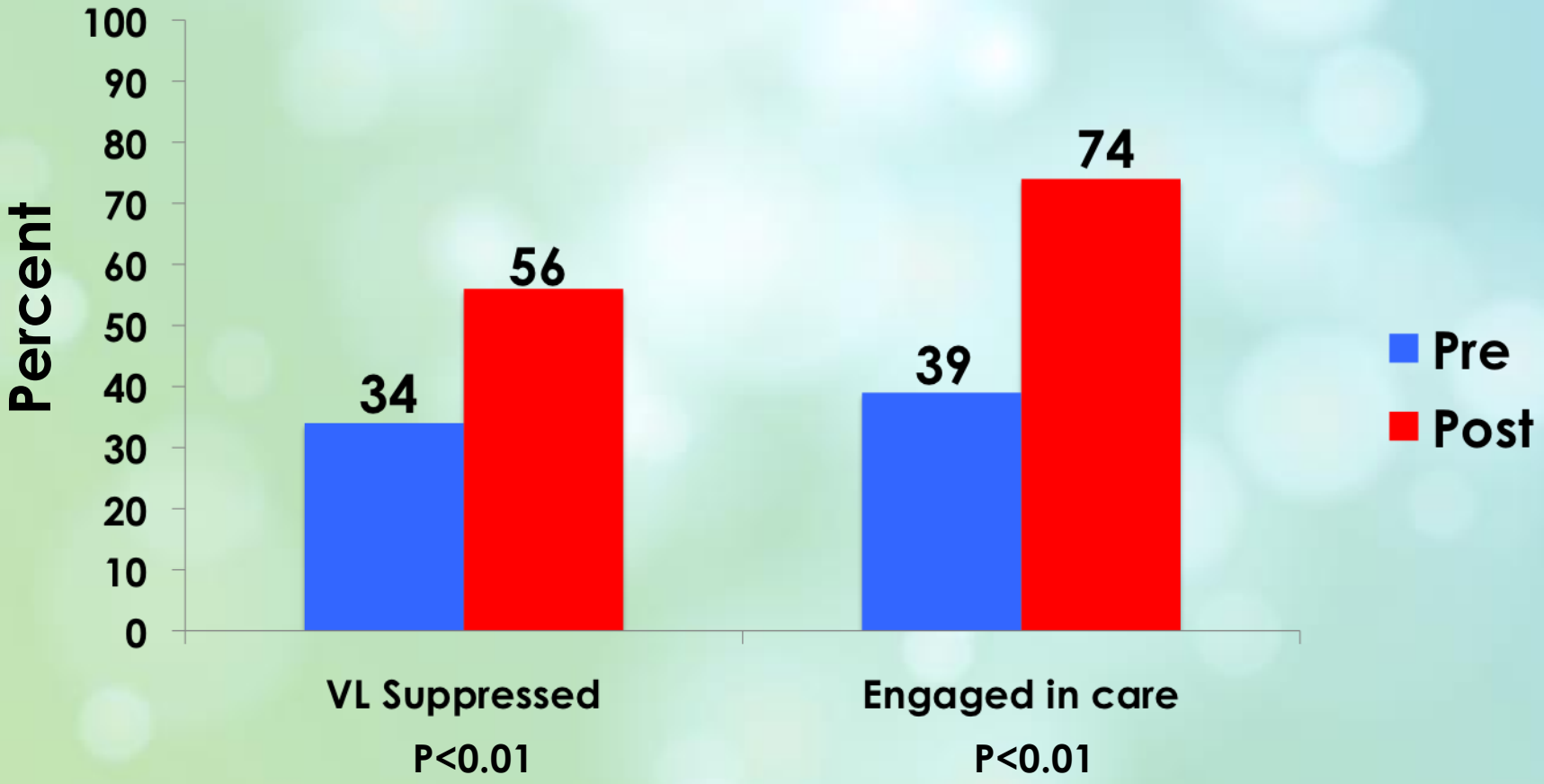
Results

- 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

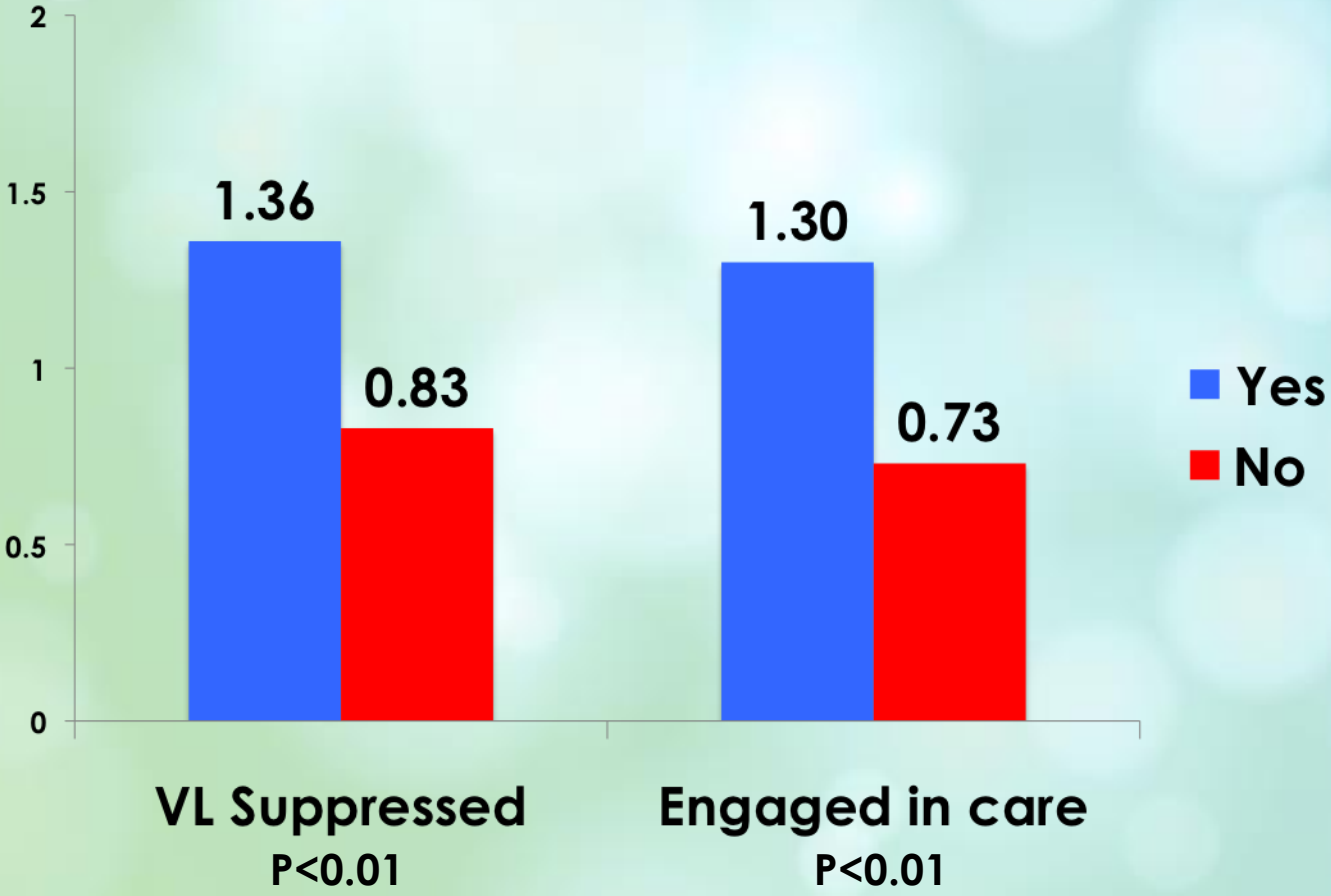
Services Provided by Intervention

- 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



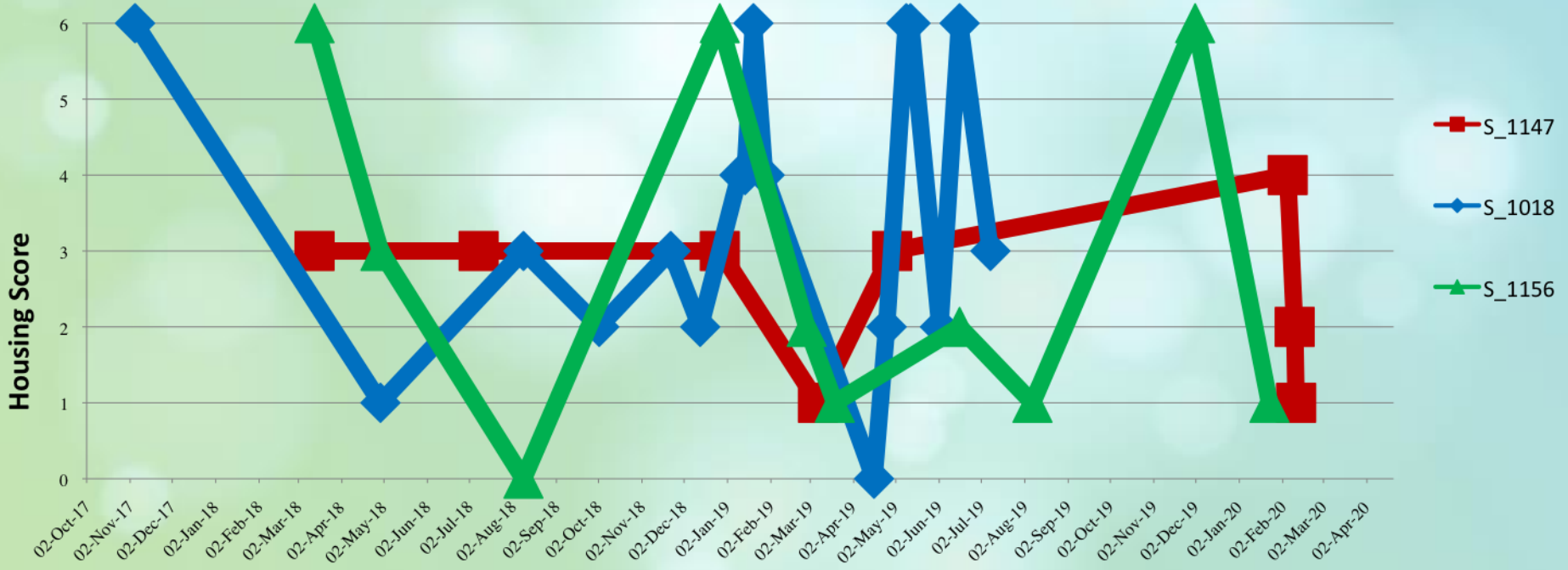
Contacts per Month in Follow-up



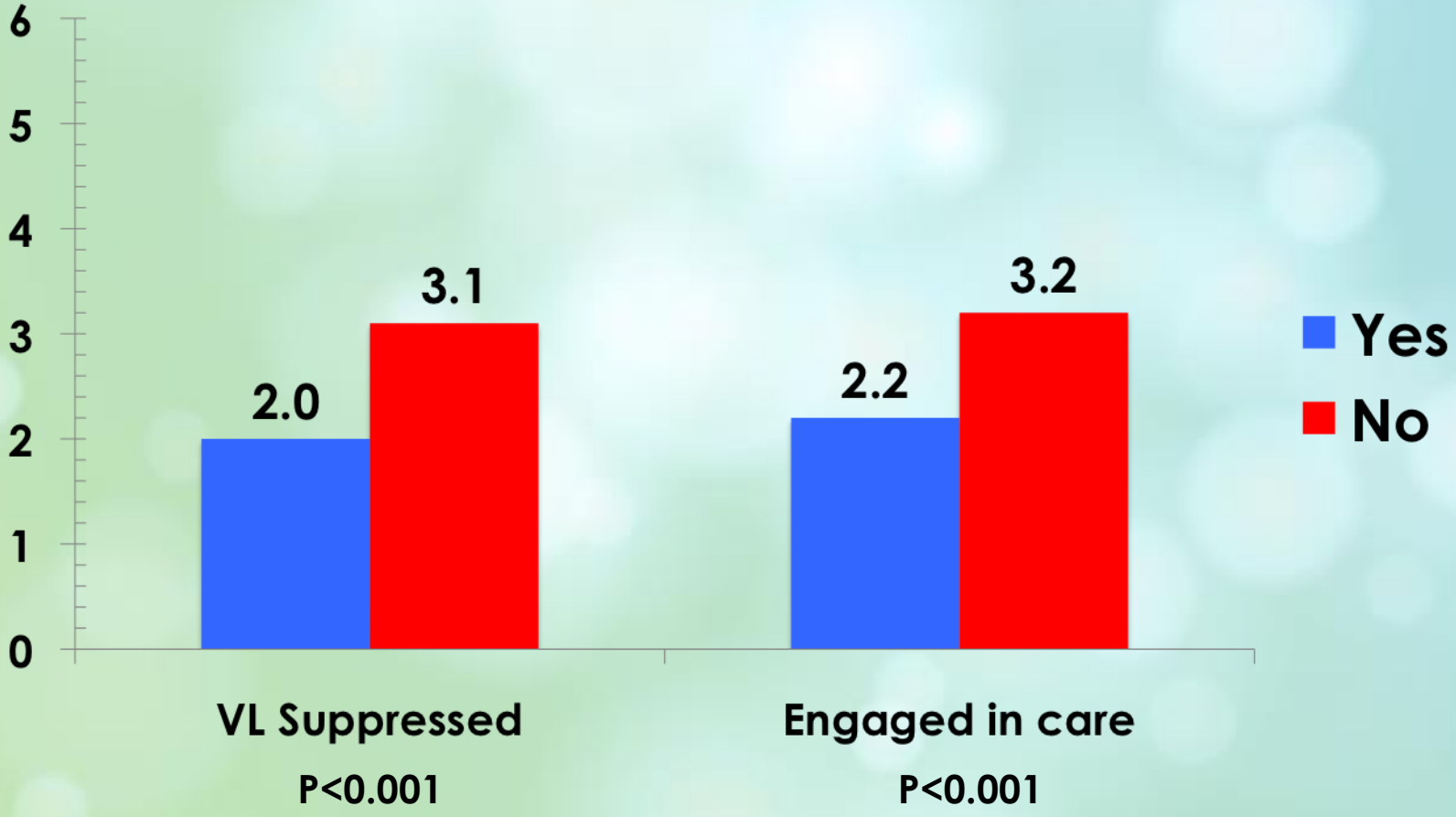
No correlation between number of contacts per month and baseline VL suppression or pre-intervention engagement in care

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



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

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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