Improving services for homeless adults with serious mental illness

Sonya Gabrielian, MD, MPH

October 28, 2020

VA Greater Los Angeles
UCLA David Geffen School of Medicine
Agenda

○ Homelessness and serious mental illness
○ Primary care experiences
○ Recovery among permanent supportive housing consumers
○ Social skills that support housing attainment and retention
○ Future directions
Who are homeless persons?

- Lack a fixed, regular, and adequate nighttime residence
- Includes persons who are unsheltered or sheltered

McKinney-Vento Definition of Homelessness
Persons at-risk for becoming homeless are also vulnerable

- Individuals and families who will imminently lose their primary nighttime residence
- Persons who are “doubled up”

Changes in the HUD Definition of “Homeless”
“Transinstitutionalization” left many persons with serious mental illness (SMI) homeless
SMI and homelessness are mutually reinforcing

- Psychiatric symptoms make it difficult to obtain and sustain independent housing
- Serious symptoms often pose barriers to household tasks and social relationships
- Persons with SMI may struggle with landlord-tenant conflicts
- Homeless persons with SMI have high rates of victimization

We do not understand why a subset of persons with SMI experience homelessness

- A minority of persons with SMI experience homelessness
- Relationships between SMI diagnoses and other functional outcomes are much better characterized
- The temporal order of homeless experiences and SMI diagnoses may be relevant

Traditionally, services were offered on a linear continuum of care

- Persons progressed along the continuum when providers deemed them “housing ready”

Housing is increasingly recognized as a basic human right, distinct from treatment adherence

- Permanent supportive housing: subsidized housing in the community with adjunctive supportive services
How do we tailor services to improve outcomes for persons experiencing homelessness who have SMI?
Conceptual framework

Contextual Characteristics
- Health and housing policies
- Organization of health and housing services

Individual Characteristics
- Demographics
- Housing history
- Clinical factors
- Independent living skills
- Source of care

Behaviors
- Service use (housing and health)
- High risk behaviors
- Money management

Outcomes
- Housing outcomes
- Health outcomes
- Functional outcomes

Gelberg et al, 2000
Primary care experiences for homeless persons with SMI
Homeless persons with SMI have poor satisfaction with primary care

- High rates of chronic disease, increased morbidity and mortality, and fragmented service use
- High rates of dissatisfaction with access to primary care and the coordination of services received
- Across diagnoses, many homeless persons perceive discrimination in primary care settings

Desai et al, 2005; Lester et al, 2003; Chrystal et al 2015; Kilbourne et al, 2006; Skosireva et al, 2014
Primary care experiences are critical for homeless persons with SMI

Experiences are associated with medication adherence

Negative experiences contribute to suboptimal service engagement

Positive experiences are linked to improved outcomes for some chronic medical illnesses

Desai et al, 2005; Kilbourne et al, 2006; Chrystal et al, 2015
We aimed to identify service design features that optimize primary care experiences for homeless-experienced persons with SMI

- The VA Homeless-Patient Aligned Care Teams (H-PACTs) offers care tailored for homeless patients
- Do H-PACTs provide homeless-experienced persons with SMI with superior care experiences than mainstream primary care?
- Do embedded behavioral health and social services contribute to superior H-PACT experiences?

O’Toole, et al, 2016
Methods

Sample
Survey of VA primary care patients with psychotic disorder or bipolar disorder who have been homeless (n=1,095)
Survey with clinicians (n=52) at 29 H-PACTs

Primary care experience
Captured in 4 domains:
Access/coordination; patient-clinician relationship; perceived clinician cooperation; homeless-specific needs

Service integration
Counted number of services embedded in HPACTs: mental health, addiction treatment, social work, and housing
Classified HPACTs as having high (3-4) or low (0-2) service integration

Kertesz, et al, 2014
Analyses

Chi square and ANOVA
To determine how patient experience differed in HPACT vs. mainstream respondents

Multivariable logistic regression
Adjusted for demographics, housing history and need, to assess differences in experience in HPACT vs. mainstream respondents

Reran multiple logistic regression
To compare respondents from high-integration HPACTs vs. low-integration HPACTs vs. mainstream

Sensitivity analyses
Do study patterns persist with alternate definitions of service integration?
HPACT respondents had higher rates of favorable primary care experiences in all four domains

<table>
<thead>
<tr>
<th>Favorable experiences with…</th>
<th>HPACT (n=626)</th>
<th>Mainstream primary care (n=343)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility &amp; coordination *</td>
<td>45%</td>
<td>28%</td>
<td>39%</td>
</tr>
<tr>
<td>Patient-clinician relationship *</td>
<td>45%</td>
<td>34%</td>
<td>41%</td>
</tr>
<tr>
<td>Perceived cooperation among clinicians *</td>
<td>38%</td>
<td>31%</td>
<td>35%</td>
</tr>
<tr>
<td>Homeless-specific needs *</td>
<td>40%</td>
<td>25%</td>
<td>35%</td>
</tr>
</tbody>
</table>

*p<.05
In logistic regression analyses, HPACT respondents were more likely to have favorable experiences across domains

<table>
<thead>
<tr>
<th>Favorable experiences with…</th>
<th>HPACT (Adjusted %)</th>
<th>Mainstream primary care (Adjusted %)</th>
<th>Adjusted Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility &amp; coordination *</td>
<td>46%</td>
<td>28%</td>
<td>2.2</td>
</tr>
<tr>
<td>Patient-clinician relationship *</td>
<td>47%</td>
<td>32%</td>
<td>1.9</td>
</tr>
<tr>
<td>Perceived cooperation among clinicians *</td>
<td>40%</td>
<td>29%</td>
<td>1.7</td>
</tr>
<tr>
<td>Homeless-specific needs *</td>
<td>40%</td>
<td>25%</td>
<td>2.1</td>
</tr>
</tbody>
</table>

*p<.05
Logistic regression analyses comparing three clinic types highlighted the value of “highly integrated” HPACTs

<table>
<thead>
<tr>
<th>Favorable experiences with...</th>
<th>High vs. low integration HPACT</th>
<th>High integration HPACT vs. mainstream</th>
<th>Low integration HPACT vs. mainstream</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility &amp; coordination</td>
<td>1.7 *</td>
<td>3.5 *</td>
<td>2.0 *</td>
</tr>
<tr>
<td>Patient-clinician relationship</td>
<td>0.9</td>
<td>1.7 *</td>
<td>2.0 *</td>
</tr>
<tr>
<td>Perceived cooperation among clinicians</td>
<td>0.8</td>
<td>1.4 *</td>
<td>1.8 *</td>
</tr>
<tr>
<td>Homeless-specific needs</td>
<td>1.0</td>
<td>2.1 *</td>
<td>2.1 *</td>
</tr>
</tbody>
</table>

*p < .05
Study patterns persisted with alternate definitions of service integration

---

**Number of services integrated into HPACTs**

- Was positively associated with favorable experiences in access/coordination (AOR=1.4)

**Among embedded services studied, only housing was significant**

- Among HPACT respondents, those in clinics with housing services were 2.4 times as likely to report favorable access-coordination experiences

**None of the other embedded services were associated with favorable experiences in any domain**

- Including mental health services
These data suggest that assignment to primary care clinics tailored for homeless persons leads to more favorable experiences than mainstream primary care.

Within homeless-tailored primary care, specific behavioral health services were not associated with patient experience.

Having more embedded services, i.e., high integration, was associated with favorable perceptions of clinic access/coordination.
Recovery among permanent supportive housing (PSH) consumers
Recovery from homelessness extends beyond housing

Parallel to recovery from serious mental illness, it encompasses a process of building a meaningful life

We know little about PSH consumers’ social integration or instrumental functioning

Andresen et al, 2003; Lloyd & Waghorn, 2008; Manning & Greenwood, 2019
We aimed to identify services that may enhance recovery for consumers of VA’s PSH program.

What person- and program-level factors distinguish PSH consumers with...

Higher versus lower social integration

Higher versus lower instrumental functioning
Our sample (n=60) derived from a larger program evaluation of VA Greater Los Angeles’ PSH program

- One-time surveys (~45 minutes)
- Medical record review
- Semi-structured interviews with a subset (n=26) of participants
Measures

**Personal factors**
- Demographics
- Health-related quality of life
- Mental health symptoms
- Substance use
- Diagnoses
- Cognition
- # of PSH and MH visits
- Use of vocational services

**Program factors**
- Case management experiences
- Accessibility of community resources
- Neighborhood safety

**Recovery outcomes**
- Social integration
  - Social support
  - Community involvement
- Instrumental functioning
  - Brief Instrumental Functioning Scale
Analyses

○ Median split to dichotomize participants with higher vs. lower social integration composite; higher vs. lower instrumental functioning

○ Recursive partitioning to identify which combination of measures and corresponding scores best differentiated the two groups in each analysis

○ Thematic analysis of interview data
Classifying participants with higher vs. lower social integration

N=60 participants and 33 predictor variables

Correctly classified 80% of participants

Physical health-related quality of life

- T-Score ≥ 44.1: Higher social integration
- T-Score < 44.1: Lower social integration

Mental health symptoms affecting interpersonal relationships

- z-score ≥ 1.1: Higher social integration
- z-score < 1.1: Lower social integration

# of PSH case management visits/6 months

- ≥ 2 visits: Higher social integration
- < 2 visits: Lower social integration
Participants did not view PSH services as associated with social integration

- Veteran peers in the PSH program were viewed as important for social support
- Housing attainment led participants’ families to view them as “stable”
- Neighborhood characteristics were highly relevant to social integration
Factors associated with instrumental functioning

Quantitative analyses
- Median split differentiated participants who required no assistance with IADLs and those who required assistance in 1+ IADL
- Recursive partitioning did not yield a stable model

Salient IADL support from PSH services
- Managing health care needs
- Money management

Higher versus lower instrumental functioning
- Higher group was aware of IADL supports but declined these services
- Lower group was highly reliant on PSH services and greatly valued these supports
PSH programs may benefit from implementing services that enhance social integration for consumers with poor physical or mental health.

Current services may adequately address instrumental functioning.
Adapting social skills training for homeless persons with SMI
Social skills training effectively improves social skills and functioning for persons with SMI

- Many social skills training paradigms are well-suited for persons with SMI who do not live independently.
- Beyond potentially facilitating social integration among homeless persons with SMI, social skills training may improve housing attainment and retention.
- Social skills training interventions are often implemented in mental health settings, but uncommon within homeless services.

Kopelowicz et al, 2006; Gabrielian et al, 2019
We aimed to identify a set of social skills supported by diverse stakeholders as important for housing attainment and retention in this vulnerable population.

Also identified contextual factors relevant to implementation of social skills training interventions in homeless program settings.
Methods

- Literature review
- Key informant interviews (n=12)
- National consensus panel (n=11)
- Focus groups with homeless persons with SMI (n=17)
Consensus panel goals

**Feasibility**
…that a homeless person with SMI could apply the skill in his/her everyday life

**Impact**
…likelihood that the skill would substantially improve rates of housing attainment or retention

**Context**
…to identify potential barriers to and facilitators of practice change and implementation of the intervention
We identified 24 social skills in 7 domains that enable housing attainment and retention in this population

<table>
<thead>
<tr>
<th>Domain</th>
<th>Exemplar skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finding and renting an apartment</td>
<td>Interviewing for an apartment with a landlord or property manager</td>
</tr>
<tr>
<td>Using your time well</td>
<td>Finding productive things to do</td>
</tr>
<tr>
<td>Getting closer to people</td>
<td>Making new friends</td>
</tr>
<tr>
<td>Managing finances</td>
<td>Developing a budget</td>
</tr>
</tbody>
</table>
We identified 24 social skills in 7 domains that enable housing attainment and retention in this population.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Exemplar skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoiding problems with drugs and alcohol</td>
<td>Responding to family and friends who ask you to use drugs and alcohol</td>
</tr>
<tr>
<td>Solving interpersonal problems</td>
<td>Making effective compromises</td>
</tr>
<tr>
<td>Managing your health</td>
<td>Asking questions about your medications</td>
</tr>
</tbody>
</table>
Contextual factors relevant to implementation of social skills training for homeless adults with serious mental illness

- Engaging participants in identifying relevant content (important social skills and relevant role-plays) may facilitate implementation
- Competing needs (food, shelter) and lack of treatment mandates in PSH programs may pose barriers to implementation
There was strong consensus that it was feasible to train this population in an identified set of social skills and that these skills can strongly affect housing attainment and retention.

Future directions include research on the effectiveness and implementation of this adapted intervention.
Take-home points

- Primary care models tailored for homeless persons may result in better patient experiences for homeless persons with SMI

- PSH programs may benefit from implementing supportive services that address participants’ social integration

- To implement such services, achieving consensus about adaptations to existing evidence-based practices may be valuable
Future directions

○ Identifying features of mental health settings that optimize care for homeless persons with SMI

○ Implementation work to tailor, implement, and test psychosocial interventions that facilitate social integration within PSH

○ Pragmatic trial to study the effectiveness and implementation of a tailored social skills training intervention
## Acknowledgements: Primary care tailoring

<table>
<thead>
<tr>
<th>Birmingham VA/UAB</th>
<th>VA Salt Lake City/University of Utah</th>
<th>VA Greater LA/UCLA</th>
<th>Pittsburgh VA/USC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erika Austin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aerin deRussy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April Hoge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sally Holmes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stefan Kertesz (PI)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young-il Kim</td>
<td>Adam Gordon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann Elizabeth</td>
<td>Audrey Jones (co-lead on SMI analyses)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montgomery</td>
<td></td>
<td>Lillian Gelberg</td>
<td>John Blosnich</td>
</tr>
<tr>
<td>David Pollio</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kevin Riggs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allyson Varley</td>
<td>Adam Gordon</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Acknowledgements

**Recovery in PSH**
- Ella Koosis
- Jennifer Cohenmehr
- Gerhard Hellemann
- Anais Tuepker
- Michael Green
- Jesse Vazzano
- Alexander Young

**Tailoring social skills training**
- Alison Hamilton
- Lillian Gelberg
- Ella Koosis
- Axeline Johnson
- Alexander Young
Questions

Sonya Gabrielian, MD, MPH

sonya.gabrielian@va.gov