Increasing treatment seeking among at-risk service members returning from war
Background

- Rates of PTSD are between 11-20% and depression around 14% among veterans returning from the wars in Iraq and Afghanistan
- Rate of suicidal ideation is between 6-12%
- 22 Veterans die by suicide per day
Poll Question: What is the percentage of suicidal Veterans who seek treatment

• A: 5%
• B: 25%
• C: 50%
• D: 75%
Suicide among Veterans

- 7% of the US population are Vets, but they account for 20% of the suicides.
- In 2012, 50,000 new veterans were diagnosed with PTSD
- In 2013, the VA spent $600,000,000 treating PTSD.
Treatment Utilization Rates

• Among U.S. service members who acknowledge mental health symptoms, only about one-quarter to one-half seeks treatment.
Aims of trial

• Test the effectiveness of a brief cognitive behavioral intervention designed to modify beliefs about mental health treatment so that OEF/ OIF Veterans at-risk for suicide are more likely to seek treatment.
Participants (N=1,200)

• U.S. service members who served in the military since 9/11
• Positive screen on #9 on PHQ-9
• Not receiving mental health services
Measures

1. PCL
2. PHQ-9
3. PASS (Perceptions about Services Scale)
4. ASI
5. CSSR-S
6. Insomnia Severity Scale
7. Pain Scale
8. Burden-Belongingness Scale
Procedures

Participants randomly assigned to receive intervention or control
All participants complete baseline assessment
Intervention participants receive intervention at baseline and at 1 month
Follow-up interviews conducted at months 1, 3, 6, and 12
Intervention

• Brief cognitive-behavioral intervention conducted over the phone to modify beliefs about treatment that interfere with treatment seeking.
Safety Protocol

• VA’s National Crisis Line
• Goal is safety. Reduce access to means, etc.
• Approximately half of the callers that call the Crisis Line refuse a treatment referral.
Characteristics of the Sample Year 1

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Intervention (n=286)</th>
<th>Control (n=284)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age</td>
<td>31.5</td>
<td>30.7</td>
</tr>
<tr>
<td>Gender (% male)</td>
<td>90%</td>
<td>91%</td>
</tr>
<tr>
<td>Race (% Cauc)</td>
<td>76%</td>
<td>75%</td>
</tr>
</tbody>
</table>
# Branch of Service

<table>
<thead>
<tr>
<th></th>
<th>Intervention (n=286)</th>
<th>Control (n=284)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>67%</td>
<td>70%</td>
</tr>
<tr>
<td>National Guard</td>
<td>36%</td>
<td>31%</td>
</tr>
<tr>
<td>Navy</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>Air Force</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>Marine</td>
<td>17%</td>
<td>16%</td>
</tr>
</tbody>
</table>
# Baseline Clinical Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCL</td>
<td>62.2</td>
<td>62.3</td>
</tr>
<tr>
<td>PHQ9</td>
<td>17.8</td>
<td>18.4</td>
</tr>
</tbody>
</table>
## Baseline Substance Use

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>% using Alcohol</td>
<td>77%</td>
<td>76%</td>
</tr>
<tr>
<td>% using Marijuana</td>
<td>36%</td>
<td>39%</td>
</tr>
</tbody>
</table>
Previous attempts - 35%

211 overdoses
70 cutting
75 firearm injuries
24 hanging
83 other
“Harry”

• 29 year old Black male who separated from the Navy. Deployed to Iraq
Harry’s symptoms

• PCL=74, PHQ9=25
• Describes himself as the walking dead. “The military trained me to die on the one hand but also trained me to be disciplined.”
• Unemployed, not seeking services (whenever I try it doesn’t go my way so why try?)
• 2 plans for suicide. Pills and alcohol. Driving into a lake.
• Believes his 4 year old daughter would be better off without him.
Harry’s beliefs about treatment

1. I don’t want to be labelled crazy.
2. I’m not sure I want to be here. I wake up every morning questioning whether I want to live or die.
Harry’s alternative beliefs

1. I try for the sake of my little girl but I can’t remember who I was anymore. It’s all so depressed and dark.

2. On challenge to thought that daughter would be better off without him, he became agitated. Agreed to call from CL and SPC.
Summary

• Veterans may have beliefs about treatment that interfere with treatment seeking.
• Talking through these beliefs may help Veterans seek help earlier.
Connecting Veterans at Risk for Suicide with Care through the Home-Based Mental Health Evaluation (HOME) Program

Bridget B. Matarazzo, PsyD

Rocky Mountain Mental Illness, Research, Education and Clinical Center (MIRECC); University of Colorado, School of Medicine, Department of Psychiatry

HSR&D Cyberseminar
September 14, 2015
Disclaimer
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Funding
This project is funded by the Department of Veterans Affairs Mental Health Services
Poll Question #1
What is your primary role in VA?

A. Student, trainee or Fellow
B. Clinician
C. Researcher
D. Manager or policy maker
E. Other
Suicide Risk Following Psychiatric Hospitalization
Trajectory of Suicide Risk

- Discharge from inpatient psychiatric unit
- Lack of treatment engagement
- Heightened risk of death by suicide
Re-Assessment Post-Discharge

Patients had significantly lower self-esteem and higher worry (both suicide risk factors) than when in the hospital
35% didn’t remember discharge plans
86% who said they didn’t need care post-discharge changed their minds

Re-assessment may:
  • enhance the accuracy of assessments,
  • improve treatment planning,
  • encourage follow-up care

(Verwey et al., 2010)
The HOME Program
Meet the Veteran on the inpatient unit.

Telephone follow-up within one day of discharge.

Home visit during first week post-discharge

Ongoing telephone follow-up until engaged in care
Primary Aim: Treatment Engagement

Relative to matched controls, Veterans participating in HOME will:

- **Hypothesis 1** - be significantly more likely to engage in treatment

- **Hypothesis 2** - will engage in treatment in a significantly shorter period of time
Secondary Aim: Collect data on participants’ post-discharge symptoms

**Hypothesis 3** - Comparing scores obtained pre-discharge (Time 1) and within one week post-discharge (Time 2), Veterans will report significant increases in mood related symptoms and suicidal ideation.

**Hypothesis 4** - Comparing scores obtained within one week post-discharge (Time 2) and 3 months post-discharge (Time 4), Veterans who engage in treatment (as defined below) will report significant decreases in mood related symptoms and suicidal ideation.
Methods
Methods - Participants

68 Veterans admitted to inpatient psychiatric unit endorsing suicidal ideation and/or behavior

Intervention group (n=34)

Gender and age matched archival control group (n=34)
Methods - Data Collection

Primary Aim- Treatment Engagement (n=68)
Data collection via electronic medical record
90 days post-discharge

Secondary Aim- Participant Characteristics (n=34)
Longitudinal prospective data collection

• Time 1- on the inpatient unit
• Time 2- prior to home visit (first week post-discharge)
• Time 3- one week post-disenrollment
• Time 4- three months post-discharge
Results
Treatment Engagement

HOME Group
- Engaged: 0%
- Not Engaged: 100%

Control Group
- Engaged: 21%
- Not Engaged: 79%

*p = .02*
Days Until Treatment Engagement

\[ p = .04 \]
### Additional Analyses - # of Appointments Attended

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Mean Difference (SE)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual MH</td>
<td>1.41 (0.70)</td>
<td>0.05</td>
</tr>
<tr>
<td>Group MH</td>
<td>-0.65 (1.86)</td>
<td>0.73</td>
</tr>
<tr>
<td>Individual SA</td>
<td>0.44 (0.29)</td>
<td>0.14</td>
</tr>
<tr>
<td>Group SA</td>
<td>-0.82 (1.83)</td>
<td>0.66</td>
</tr>
<tr>
<td>All Individual</td>
<td>1.85 (0.78)</td>
<td><strong>0.02</strong></td>
</tr>
<tr>
<td>All Group</td>
<td>-1.47 (2.59)</td>
<td>0.57</td>
</tr>
</tbody>
</table>
### Participant Characteristics - Demographics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Summary Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>50.5 (median) 27-69 (range)</td>
</tr>
<tr>
<td>Sex (male)</td>
<td>88%</td>
</tr>
<tr>
<td>White race</td>
<td>71%</td>
</tr>
<tr>
<td>Married or Partnered</td>
<td>24%</td>
</tr>
<tr>
<td>Unemployed or Not Employed Outside the Home</td>
<td>81%</td>
</tr>
<tr>
<td>1+ Episode of Homelessness</td>
<td>30%</td>
</tr>
</tbody>
</table>
Participant Characteristics – Lifetime Suicidal Behavior History

C-SSRS Results

- Suicidal behavior: 68%
- Actual attempt: 50%
- 2+ attempts: 29%
Participant Characteristics- Baseline to one week post-discharge

**Brief Symptom Inventory**

<table>
<thead>
<tr>
<th>Time 1</th>
<th>Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
</tr>
</tbody>
</table>

**Beck Scale for Suicidal Ideation**

<table>
<thead>
<tr>
<th>Comparison</th>
<th>OR</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1 / Time 2</td>
<td>2.99</td>
<td>(1.34, 6.67)</td>
<td>0.007</td>
</tr>
</tbody>
</table>
### Participant Characteristics - Baseline to three months post-discharge

#### Brief Symptom Inventory

<table>
<thead>
<tr>
<th>Time 1</th>
<th>Time 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

*The decrease in symptoms is statistically significant at p = .002.*

#### Beck Scale for Suicidal Ideation

<table>
<thead>
<tr>
<th>Comparison</th>
<th>OR</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1 / Time 4</td>
<td>1.09</td>
<td>(0.38, 3.15)</td>
<td>0.88</td>
</tr>
</tbody>
</table>
## Participant Characteristics - Additional Analyses

### Attitudes Towards Seeking Professional Psychological Help: Modified Shortened Version

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Estimated Mean Difference</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 2 - Time 1</td>
<td>0.59</td>
<td>(-0.55, 1.73)</td>
<td>.31</td>
</tr>
<tr>
<td>Time 4 - Time 1</td>
<td>1.13</td>
<td>(0.02, 2.25)</td>
<td>.046</td>
</tr>
</tbody>
</table>
Discussion
Discussion

In the first 90 days post-hospitalization, Veterans who participated in the HOME program, as compared to archival matched controls, were more likely to engage in care, engage in care in a shorter amount of time and attend more individual outpatient appointments.

Veterans in the HOME program:
1. Are characterized by many factors that place them at increased risk for suicide
2. Experience decreased suicidal ideation and other MH symptoms once home from the hospital (which is discrepant from what literature suggests)
3. Report improved attitudes towards seeking MH care 3 months post-discharge as compared to when they were in the hospital

Limitations: Small sample, no comparison group for prospective data
HOME Expansion Timeline

- **VA Clinical Demonstration Project (MHS)**
  - Denver
  - July 2012

- **VA Clinical Demonstration Project (MHS)**
  - Salt Lake City
  - January 2013

- **Military Suicide Research Consortium Grant**
  - Denver, Houston, Portland & Philadelphia
  - May 2013

- **VA Clinical Demonstration Project (MHS and ORH)**
  - Durham
  - April 2014
Questions/Comments

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