Impact of Cognitive Processing Therapy on Suicidal Ideation among Active Duty Military Personnel

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STRONG STAR

What is it?

- The South Texas Research Organizational Network Guiding Studies on Trauma and Resilience

- A multidisciplinary and multi-institutional research consortium to develop and evaluate the most effective early interventions possible for the detection, prevention, and treatment of combat-related PTSD in active-duty military personnel and recently discharged veterans.

Funding

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# Impact of Cognitive Processing Therapy on Suicidal Ideation among Active Duty Military Personnel

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Background

- Suicide is the second most common cause of death within the U.S. Armed Forces (U.S. Department of Defense, 2007).

- From 2008 to 2011, suicide accounted for approximately 26% of all non-war related deaths of U.S. Service members (MSMR, 2012)
Background

• An estimated 15% of all current casualties of veterans of OEF and OIF are the result of suicidal behavior and suicide.

• In 2010, documented suicides among all military branches were 280 (DODSER, 2010)

  116  Army  
  39  Navy  
  59  Air Force 
  37  Marine Corps
Background

- Clinicians often cite concerns about potential iatrogenic effects of trauma-focused therapies with suicidal patients which serves as a barrier to providing empirically-supported treatments to patients with PTSD (Becker, Zayfert, & Anderson, 2004).
Purpose of Study

• To evaluate the comparative frequency and intensity of suicidal ideation with active duty Army personnel with PTSD who receive group Cognitive Processing Therapy (CPT-C) versus group Present Centered Therapy (PCT).
## Demographics

<table>
<thead>
<tr>
<th></th>
<th>CPT-C</th>
<th>PCT</th>
<th>Statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td>51 (93%)</td>
<td>48 (92%)</td>
<td>$c^2=0.01$</td>
<td>0.93</td>
</tr>
<tr>
<td><strong>Caucasian</strong></td>
<td>11 (20%)</td>
<td>11 (21%)</td>
<td>$c^2_{(2)}=0.98$</td>
<td>0.61</td>
</tr>
<tr>
<td><strong>African American</strong></td>
<td>37 (67%)</td>
<td>31 (60%)</td>
<td>$c^2= 0.39$</td>
<td>0.53</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>7 (13%)</td>
<td>10 (19%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Married N (%)</strong></td>
<td>45 (82%)</td>
<td>40 (77%)</td>
<td>$c^2=0.39$</td>
<td>0.53</td>
</tr>
<tr>
<td><strong>E3-E4</strong></td>
<td>20 (36%)</td>
<td>12 (23%)</td>
<td>$c^2_{(4)}=6.27$</td>
<td>0.18</td>
</tr>
<tr>
<td><strong>E5</strong></td>
<td>14 (25%)</td>
<td>24 (46%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>E6</strong></td>
<td>12 (21%)</td>
<td>7 (13%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>E7-9</strong></td>
<td>9 (16%)</td>
<td>9 (17%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WO2-5</strong></td>
<td>2 (4%)</td>
<td>1 (2%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## # Deployments

<table>
<thead>
<tr>
<th></th>
<th>CPT-C</th>
<th>PCT</th>
<th>Statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>17 (31%)</td>
<td>11 (21%)</td>
<td>$c^2_{(3)}=2.61$</td>
<td>0.46</td>
</tr>
<tr>
<td>2</td>
<td>24 (44%)</td>
<td>21 (40%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>10 (18%)</td>
<td>13 (25%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 and more</td>
<td>4 (7%)</td>
<td>7 (13%)</td>
<td></td>
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## Age (mean, SD)

<table>
<thead>
<tr>
<th></th>
<th>CPT-C</th>
<th>PCT</th>
<th>Statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>31.9±7.4</td>
<td>32.4±7.9</td>
<td>t=0.39</td>
<td>0.70</td>
</tr>
</tbody>
</table>

## Months in service

<table>
<thead>
<tr>
<th></th>
<th>CPT-C</th>
<th>PCT</th>
<th>Statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Months</td>
<td>118.8±73.0</td>
<td>129.3±81.3</td>
<td>t=0.70</td>
<td>0.48</td>
</tr>
</tbody>
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*Note: df for t-tests=105.*
Methodology

- Longitudinal randomized clinical trial at Fort Hood U.S. Army post

- 107 active duty Army personnel randomized to group Cognitive Processing Therapy (CPT-C; cognitive-only version) or Present Centered Therapy (PCT) for PTSD

- Participants were assessed pre-treatment, weekly during treatment, and post-treatment
Measures: Beck Depression Inventory (BDI-II)

BDI Item # 9: Suicidal Thoughts or Wishes

- **0 =** I don’t have any thoughts of killing myself.
- **1 =** I have thoughts of killing myself, but I would not carry them out.
- **2 =** I would like to kill myself.
- **3 =** I would kill myself if I had the chance.
% Positive on BDI # 9

BDI Item 9

Percent with BDI9 >0

Session #
Results: BDI-II

BDI # 9 Dichotomous score (any suicidal ideation vs. none)

- No significant differences at baseline or in the post-baseline assessments between the treatment groups.

- Suicidal ideation decreased in both CPT-C and PCT groups once treatment began.
Measures: Beck Scale for Suicidal Ideation (BSS)

**BSS 4-5 Index**

Item # 4:

- 0 = I have no desire to kill myself
- 1 = I have a weak desire to kill myself
- 2 = I have a moderate to strong desire to kill myself
Beck Scale for Suicidal Ideation (BSS)

BSS 4-5 Index

Item # 5:

- 0 = I would try to save my life if I found myself in a life-threatening situation.

- 1 = I would take a chance on life or death if found myself in a life-threatening situation

- 2 = I would not take steps necessary to avoid death if I found myself in a life-threatening situation.
% Positive on BSS 4-5

BSS Items 4-5 Positive

Percent with BSSI 4/5 > 0

Session #

CPT-C

PCT
Results:
BSS 4-5 Index Score

- PCT demonstrated significant pretreatment reduction in suicidal ideation from baseline to first session relative to CPT-C.

- Suicidal ideation decreased in both CPT-C and PCT once treatment began. Thus, in the end the treatments did not differ.

- Only 2.2% (CPT-C) and 2.3% (PCT) of participants who initially denied suicidal ideation at BL reported suicidal ideation at follow-up.
Results:
BSS Full scale score

- Full scale score was extremely skewed due to # 6 – 20 not being administered if items # 4 and # 5 were zero.

- However, total score on BSS was highly correlated with the BSS 4-5 Index score.

- Thus, suicidal ideation decreased in both CPT-C and PCT with no difference between treatments.
Findings/ Discussion

• PCT group improved significantly more on the BSS 4-5 Index from BL to session # 1 relative to CPT-C group, suggesting differential response patterns before the start of treatment.

• There were no differences in patterns of suicidal ideation between CPT-C and PCT over time.

• Differences between CPT-C and PCT were not necessarily expected since neither treatment directly targeted suicide risk as a primary treatment goal.
Findings/ Discussion

• Emergence of “new” suicidal ideation within CPT-C was extremely rare.

• Results provide empirical evidence that CPT-C is not associated with increased proportions or intensity of suicidal ideation as compared to a present-focused therapy.

• Implications for providers who may believe that trauma-focused treatment, such as CPT-C, can increase a patient’s risk for suicide.
Future Research

- Inclusion of Veterans with PTSD and acute suicidality to describe the ‘safety’ of CPT through monitoring of suicidal ideation and behaviors during treatment.

- Clinical implications could be Veterans with PTSD and acute suicidality are ‘safe’ to start CPT even if experiencing suicidal ideation and behaviors prior to treatment.