Status of Department of Defense Funded Suicide Research

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American Association of Suicidology
April 20, 2012
Post Admission Cognitive Therapy (PACT) for the Prevention of Suicide

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Associate Professor, Clinical & Medical Psychology, Psychiatry
American Association of Suicidology
April 18-21, 2012
Suicide Related Emergency Department Visits and Psychiatric Hospitalizations

Limited Scientific Evidence for Acute Care

Post Admission Cognitive Therapy (PACT)

Brief Summary
Emergency Department Visits
Psychiatric Hospitalizations
Path of Suicidal Patient to Psychiatric Hospitalization

Suicide Crisis
- Ideation
- Attempt

ED Visit
- Seeks Help for Suicide Crisis

ED Evaluation
- Multiple Interviews

ED Decision
- Voluntary or Involuntary

Psychiatric Hospitalization

Medical & Psychiatric History Often Unknown

Discharged Home
1 in 5 Hospital Admissions
  ➢ Related to Mental Health Condition

Average Length of Psychiatric Stay = 8.2 Days
  ➢ All Hospital Stays = 4.6 Days

Two Most Common Causes for Psychiatric Stays
  ➢ Mood Disorders = 729,500 Stays (54%)
  ➢ Psychotic Disorders = 380,600 Stays (28%)

Source: AHRQ, Healthcare Cost and Utilization Project, 2008
Psychiatric Hospitalizations
Suicide Attempts

- Of the adults who attempted suicide in the past year, 62.3% received medical attention for their suicide attempts.

- 46.0% stayed overnight or longer in a hospital for their suicide attempts.

Source: National Survey on Drug Use and Health, 2009
# Reasons for Hospitalizations

## Table 1. Hospitalizations, ICD-9 diagnostic categories, active component, U.S. Armed Forces, 2005, 2007, and 2009

<table>
<thead>
<tr>
<th>Major diagnostic category (ICD-9-CM)</th>
<th>2005</th>
<th>2007</th>
<th>2009</th>
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<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Rate</td>
<td>Rank</td>
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<tr>
<td>Mental disorders (290 - 319)</td>
<td>11,335</td>
<td>8.01</td>
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<tr>
<td>Pregnancy and childbirth (630 - 679, relevant V codes)a</td>
<td>18,465</td>
<td>13.04</td>
<td>(1)</td>
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<tr>
<td>Injury and poisoning (800 - 999)</td>
<td>12,358</td>
<td>8.73</td>
<td>(2)</td>
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<tr>
<td>Digestive system (520 - 579)</td>
<td>7,332</td>
<td>5.18</td>
<td>(4)</td>
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<tr>
<td>Musculoskeletal system (710 - 739)</td>
<td>7,322</td>
<td>5.17</td>
<td>(5)</td>
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</table>

Source: Medical Surveillance Monthly Report, April 2010
Suicidal individuals receiving inpatient psychiatric care are at an increased risk for suicide-related behaviors or eventual death by suicide.

- This risk may last for many years.

There is an emotional and economic burden associated with suicide-related psychiatric hospitalizations.

Mental disorders have become the leading cause for hospitalizations in the U.S. military.

- Mental Disorders = Suicide Risk, Homicide Risk, AND/OR Psychosis
Limited Scientific Evidence
Acute Care
Inpatient Psychotherapy RCTs

- **Study 1 (Liberman et al., 1981)**
  - 24 Patients Randomized, 2 Yr Follow-up
    - Behavior Therapy (n = 12); Insight Oriented Therapy (n = 12)
  - 4 Daily Hours of Therapy over 8 Days
  - Outcomes: Depression, Suicide Ideation, & Attempts
  - BT > IOT at 9 Months

- **Study 2 (Patsiokas, 1985)**
  - 15 Patients Randomized, No Follow-up
    - Problem Solving (n = 5); Cognitive Restructuring (n = 5); Non-Directive Control (n = 5)
  - 10 Individual Sessions over 3 Weeks
  - Outcomes: Hopelessness, Suicide Ideation, & Intent
  - PS > CR = Control
1970 to 2007 Randomized Controlled Trials on Psychotherapy to Address Suicide-Related Behaviors

- Dialectical Behavior Therapy (DBT)
- Mentalization Based Treatment (MBT)
- Transference-Focused Psychotherapy (TFP)
- Schema-Focused Therapy (SFT)
- Cognitive Behavior Therapy (CBT)
Commonalities of Treatments
Weinberg et al. (2010)

- Agreed Upon Treatment Framework
- Attention to Affect
- Active Therapist
- Suicide Must Be Understood
- Exploration OR Behavioral Analysis
- Change in Thinking & Behavior
- Agreed Upon Strategy for Managing Suicidal Crises
Post Admission Cognitive Therapy (PACT)

Inpatient Cognitive and Behavioral Treatment for the Prevention of Suicide

Ghahramanlou-Holloway, Cox, & Greene
Cognitive and Behavioral Practice, 2012
Stage I
- Develop Intervention
- Conduct Pilot & Feasibility Testing
  - Write Treatment Protocol
  - Implement Training
  - Develop Adherence & Competency Measures

Stage II
- Conduct Randomized Controlled Trial
  - Determine Effect Size for Treatment
  - Evaluate Mechanisms of Action

Stage III
- Evaluate Transportability of Treatment
  - Examine Implementation Issues
  - Determine Cost Effectiveness

Rounsaville et al., 2001
<table>
<thead>
<tr>
<th></th>
<th>Trial 1 Stage I</th>
<th>Trial 2 Stage I</th>
<th>Trial 3 Stage II</th>
<th>Trial 4 Stage III</th>
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<tr>
<td><strong>Number of Expected Participants</strong></td>
<td>N = 24</td>
<td>N = 50</td>
<td>N = 218</td>
<td>N = 189</td>
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<tr>
<td><strong>Funding Source and Amount</strong></td>
<td>National Alliance for Research on Schizophrenia and Depression $60,000</td>
<td>Congressionally Directed Medical Research Program $457,609</td>
<td>United States Department of Defense $6,000,000</td>
<td>United States Department of Defense $2,893,708</td>
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<tr>
<td><strong>Inclusion Criteria</strong></td>
<td>Inpatients Suicide Attempt</td>
<td>Inpatients Suicide Attempt AND Trauma</td>
<td>Inpatients Suicide Attempt Past OR Current</td>
<td>Inpatients Suicide Attempt OR Suicide Ideation</td>
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<td><strong>Intervention</strong></td>
<td>Post Admission Cognitive Therapy (PACT)</td>
<td>Post Admission Cognitive Therapy (PACT)</td>
<td>Post Admission Cognitive Therapy (PACT)</td>
<td>Safety Planning</td>
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<tr>
<td><strong>Sites</strong></td>
<td>Walter Reed National Military Medical Center To Be Added: Ft. Belvoir; Naval Medical Center Portsmouth</td>
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</table>
10-Session Outpatient Cognitive Therapy for the Prevention of Suicide
Survival Functions for Repeat Suicide Attempt by Study Condition

Cumulative Survival

Cognitive Therapy
Reduction of Subsequent Suicide Attempts by ~50%

Control

Brown et al., (2005)

*p < .05
Cognitive Therapy for Prevention of Suicide

SUICIDE-RELATED BEHAVIORS

Problematic Coping

Primary Problem Rather than Symptom of a Disorder
**Study Participants**

- **Inclusion Criteria**
  - Suicide Attempt within Past 10 Days
  - Current or Past Diagnosis of ASD or PTSD
  - Baseline Completed within 48 Hours of Admission
  - Over the Age of 18
  - Provides Informed Consent

- **Exclusion Criteria**
  - Self-Inflicted Harm with No Intent or Desire to Die
  - Medical Incapacity to Participate
  - Current State of Active Psychosis
  - Expected Discharge within 72 Hours of Admission
Figure 1. Flow of Participants in the Pilot Trial for Post Admission Cognitive Therapy (PACT)

Individual with a Recent Suicide Attempt Admitted to Inpatient Psychiatric Unit at WRAMC

Eligible Patients Referred by Attending Physician

RA Recruits & Consents Eligible Patients from the Permission to Approach Form

Baseline Assessments Conducted by Study Assessor/Therapist

Randomization 50 Patients

25 Patients PACT + Enhanced Usual Care (Six 60-90 Minute PACT Sessions)

1-Month, 2-Month, 3-Month Follow-up

Follow-Up A
Web-Based Self-Administered Questionnaires (35-75 Minutes)

Follow-Up B
Phone Clinical Interview (15-90 Minutes)

25 Patients Enhanced Usual Care (No PACT Sessions)

1-Month, 2-Month, 3-Month Follow-up

Follow-Up A
Web-Based Self-Administered Questionnaires (35-75 Minutes)

Follow-Up B
Phone Clinical Interview (15-90 Minutes)
<table>
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<tr>
<th>Test Description</th>
<th>Baseline</th>
<th>1 Mo. Follow-up</th>
<th>2 Mo. Follow-up</th>
<th>3 Mo. Follow-up</th>
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<tbody>
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<td>Alcohol Use Disorders Identification Test (AUDIT)</td>
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<td>Barratt Impulsivity Scale (BIS)</td>
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<td>Beck Anxiety Inventory (BAI)</td>
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<td>Beck Depression Inventory-II (BDI-II)</td>
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<td>Beck Hopelessness Scale (BHS)</td>
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<td>Beck Scale for Suicide Ideation (BSS)</td>
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<td>Clinician Assessment of PTSD Scale (CAPS)</td>
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<td>Columbia Suicide Severity Rating Scale (C-SSRS)</td>
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<td>Deployment Risk and Resilience Inventory (DRRI)</td>
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<td>Difficulties in Emotion Regulation Scale (DERS)</td>
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<td>Firestone Assessment of Suicide Intent (FASI)</td>
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<td>Lethality Scale (LS)</td>
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<td>Locator/Demographics Form</td>
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<td>McGill Pain Questionnaire</td>
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<td>Medical History Form – Chart</td>
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<td>Mental Health Utilization Form</td>
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<td>Mini International Neuropsychiatric Screen &amp; Interview (MINI)</td>
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<td>Pittsburgh Sleep Quality Index (with PTSD Addendum)</td>
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<td>Positive Affect Negative Affect Schedule – Extended Form (PANAS-X)</td>
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<td>PTSD Checklist Military or Civilian Version (PCL)</td>
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<td>Reasons for Living – Reasons for Dying (RFL-RFD)</td>
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<td>Scale for Suicide Ideation (SSI)</td>
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<td>Social Problem-Solving Inventory-Revised, Long Form (SPSI)</td>
<td>X</td>
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</table>
# PACT

## 6 Individual Therapy Sessions – 90 Min Each

### Sessions Transcribed

<table>
<thead>
<tr>
<th>Treatment Phase</th>
<th>Therapeutic Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase I</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Sessions 1 and 2| ✓ Build Therapeutic Alliance  
|                  | ✓ Provide Psychoeducation  
|                  | ✓ Collaboratively Plan for Safety  
|                  | ✓ Develop Suicide Mode Conceptualization  
|                  | ✓ Assess Readiness for Change |
| **Phase II**    |                   |
| Sessions 3 and 4| ✓ Instill Hope – Increase Reasons for Living  
|                  | ✓ Teach Adaptive Coping Strategies  
|                  | ✓ Target Deficits in Problem Solving  
|                  | ✓ Address Social Support Concerns  
|                  | ✓ Practice Emotion Regulation Skills |
| **Phase III**   |                   |
| Sessions 5 and 6| ✓ Promote Linkage to Outpatient Aftercare  
|                  | ✓ Teach Relapse Prevention Strategies  
|                  | ✓ Refine Safety Plan before Discharge |
On Decision to Attempt Suicide

I went to the medicine cabinet and I looked in the medicine cabinet and I took all the narcotics out that I could find…I laid them all on the bed. And I sat there for a couple of minutes and I was thinking, like, it was like a part of me saying, “you don’t want to do this.” And there was a part of me saying, “Do it. Just do it. Do it.” And a part of me saying “oh/no?”. And it was 3:36 and I was looking at the clock and was just thinking about it – back and forth, back and forth. And 3:40…I was just to do it. And I just grabbed them all and took ’em. And I laid there. I laid in the bed. I started crying. And, I don’t know why I picked up the phone and I called my brother. I didn’t tell him what I did or what was going on, I just called him. And we talked for maybe about a minute or two and hung up the phone. Just waiting. Waiting for the effects to take - for whatever was supposed to happen.
Timeline of Suicide Attempt

EVENT
Receives Phone Call from Girlfriend

THOUGHTS
I am all alone. No one cares.

EMOTIONS
Anger, Sense of Betrayal

BEHAVIORS
Don’t call me again! Hangs up the phone.

REACTION TO ATTEMPT
Regrets that he survived.

SUICIDE ATTEMPT

SUICIDE MODE
I have to end my pain – she’ll see how much I truly hurt.
The treatment needs of suicidal individuals have been historically neglected.

We need to develop evidence-informed interventions for suicidal individuals admitted for inpatient care.

We need to develop these interventions as soon as possible to address the unique needs of this highly vulnerable group.
Questions?

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