Brief crisis interventions to reduce suicide risk

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Mission
To engage in research, education, outreach, and advocacy to improve the lives of veterans, and better position these skilled, experienced and well-trained veterans for continued service that further advances American values, prosperity, and security.

Partner Institutions
The University of Utah
The University of Memphis
NCVS Project Locations
Fluid vulnerability theory

Fundamental Assumptions:

• Baseline risk varies from individual to individual
• Baseline risk is determined by *static* factors
• Baseline risk is higher and endures longer for multiple attempters (2 or more attempts)
• Risk is elevated by aggravating factors
• Severity of risk is dependent on baseline level and severity of aggravating factors

(Rudd, 2006)
Fluid vulnerability theory

Fundamental Assumptions (cont’d):

- Risk is elevated by aggravating factors for limited periods of time (hours, days, weeks), and resolves when risk factors are effectively targeted
- Risk returns to **baseline level** only
- Risk is reduced by protective factors
- Multiple attempters have fewer available protective factors (support, interpersonal resources, coping/problem-solving skills, etc.)

(Rudd, 2006)
Acute suicidal ideation

Time

High chronic risk
Low chronic risk
Symptoms
- Depression
- Hopelessness
- Anxiety
- Suicidal thoughts
- Shame
- Anger
- Substance abuse

Skills deficits
- Problem solving
- Emotion regulation
- Distress tolerance
- Interpersonal skills
- Anger management

Maladaptive traits
- Self-image
- Interpersonal relations
- Impulsivity (Trauma)

(Rudd, 2001)
## Functional model of suicide

### Reinforcement

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
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</thead>
<tbody>
<tr>
<td><strong>Automatic (Internal)</strong></td>
<td><strong>Reducing tension or negative affect</strong></td>
</tr>
<tr>
<td>Adding something desirable</td>
<td>(“To stop bad feelings”)</td>
</tr>
<tr>
<td>(“To feel something, even if it is pain”)</td>
<td></td>
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<tr>
<td>Gaining something from others</td>
<td>Escape interpersonal task demands</td>
</tr>
<tr>
<td>(“To get attention or let others know how I feel”)</td>
<td>(“To avoid punishment from others or avoid doing something undesirable”)</td>
</tr>
</tbody>
</table>

(Bryan & Rudd, 2012; Nock & Prinstein, 2004)
Negative reinforcement

(Brown, 1998; Najmi, Wegner, & Nock, 2007)
Crisis Response Plan

- Decision-making aid
- Specific instructions to follow during crisis
- Developed collaboratively
- Purposes:
  1. Facilitate honest communication
  2. Establish collaborative relationship
  3. Facilitate active involvement of patient
  4. Enhance patient’s commitment to treatment
Crisis Response Plan

- Written on 3x5 card or behavioral rx pad
- Four primary components / sections:
  1. Personal warning signs of emotional crises
  2. Self-management strategies
  3. Reasons for living
  4. Social support
  5. Professional support & crisis management
Section 1: Warning signs (approx 3)

Section 2: Self-management skills (1 or 2 max)
  – Ensure competency / mastery

Section 3: Reasons for living

Section 3: Social support (write phone numbers)
  – Ensure positive / supportive

Section 4: Professionals (write phone numbers)
  – MH professionals
  – Crisis hotline: 1-800-273-TALK
  – ED and 911
Brief Self-Management Skills

- Relaxation
- Mindfulness
- Exercise
- Cooking / baking
- Watching a movie
- Drinking a cup of coffee
Why reasons for living?

- Suicidal individuals who can identify reasons for living are less likely to make suicide attempts.

- Malone (2000) Depressed patients who had not attempted suicide expressed more reasons for living; stronger feelings of responsibility toward family, fear of social disapproval, moral objections to suicide, survival and coping skills, and fear of suicide than the depressed patients who had attempted suicide.
Background cont.

• Greater ambivalence about suicide is associated with decreased risk for future death by suicide

• Brown (2005) Nearly 400 suicide attempters were categorized on the basis of their reaction to having survived their attempt; glad to be alive, ambivalent, wished they were dead. Patients who said that they wished they had died after a suicide attempt were 2.5 times more likely to die by suicide than those who were glad they survived and those who were ambivalent.
• Suicide ambivalence is significantly associated with reasons for living among patients presenting to behavioral health clinics with a suicidal crisis

• Stronger orientation towards life is associated with:
  – Stronger overall reasons for living
  – Greater survival and coping beliefs
  – Greater fear of suicide
• Go for a 10-15 min walk
• Practice breathing exercise
• Think about positive memories (see reverse)
• Call family member to talk: xxx-xxxx
• Repeat above
• Contact Dr. Bryan at xxx-xxxx & leave message
• Call hotline: 1-800-273-TALK
• Go to ER
But does it work?
<table>
<thead>
<tr>
<th>Treatment As Usual (TAU)</th>
<th>Crisis Response Plan (CRP)</th>
<th>Crisis Response Plan + Reasons for Living (CRP+RFL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide risk assessment</td>
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<tr>
<td>Supportive listening</td>
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<tr>
<td>Identify warning signs</td>
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<tr>
<td>Identify self-mgt skills</td>
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<tr>
<td>Identify reasons for living</td>
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<tr>
<td>Identify social support</td>
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<tr>
<td>Crisis mgt education</td>
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<tr>
<td>Referrals to treatment &amp; community resources</td>
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</table>
Preliminary results (n = 54)

- Participants subjectively rate all interventions as equally useful/helpful

- Participants are more likely to use CRP and CRP+RFL during 6-month follow-up
Preliminary results (n = 54)

- Immediate pre-post intervention reductions for CRP and CRP+RFL:
  - Depression
  - Agitation
  - Urge to kill self
  - Anxiety

- Immediate pre-post intervention increases for CRP+RFL:
  - Happiness
  - Hope

(Based on mixed effects models, F’s > 4.61, p’s < .015)
Emotional arousal during crisis interventions
Speech signal processing & emotional arousal

- Fundamental frequency ($f_0$)
  - Lowest frequency harmonic of speech
  - Highly correlated with perceived pitch
  - Higher $f_0$ = higher arousal
Emotional arousal and therapeutic bond

Partial $R^2 = .009$

Partial $R^2 = .286$
Emotional arousal and therapeutic bond

Partial $R^2 = .512$

Partial $R^2 = .218$
Summary

• Simple strategies save lives
• No-suicide contracts do not influence emotional distress
  – CRPs contribute to immediate reductions in negative emotions as compared to no-suicide contracts
  – Talking about the patient’s reasons for living immediately increases positive emotions
• Greater emotional arousal in the patient during a risk assessment is correlated with agitation, hopelessness, and lower therapeutic bond
• Greater emotional arousal for both patient & clinician during intervention is correlated with higher therapeutic bond
Questions

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