Treating Comorbid PTSD and Borderline Personality Disorder

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Disclosures

• Dr. Harned receives federal grants to research DBT and DBT PE.

• Dr. Harned is paid to provide training and consultation in DBT and DBT PE.

Disclaimer: The views expressed in this presentation are those of the author and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government.
Objectives

• Describe the prevalence and characteristics of individuals with comorbid PTSD and BPD.
• Understand research supporting treatments for PTSD among individuals with BPD.
• Identify treatments for PTSD likely to be appropriate for individuals with BPD of varying levels of severity.
PREVALENCE AND CHARACTERISTICS OF COMORBID PTSD AND BPD
Prevalence of Comorbid PTSD and BPD

Rate of BPD in PTSD
- 24.2%
- 75.8%

Rate of PTSD in BPD
- 30.2%
- 69.8%

*Data from National Epidemiological Survey on Alcohol and Related Conditions (NESARC) Wave 2

Pagura, Stein, Bolton, Cox, Grant, & Sareen, 2010
Lifetime Traumatic Events

PTSD + BPD has higher rates of lifetime trauma than PTSD or BPD alone.

*Data from National Epidemiological Survey on Alcohol and Related Conditions (NESARC) Wave 2

Scheiderer, Wood & Trull, 2015
Lifetime Psychiatric Disorders and Suicide Attempt

PTSD + BPD has higher rates of other psychiatric disorders and suicide attempts than PTSD or BPD alone.

*Data from National Epidemiological Survey on Alcohol and Related Conditions (NESARC) Wave 2

Pagura, Stein, Bolton, Cox, Grant, & Sareen, 2010
TREATMENT GUIDELINES AND IMPLEMENTATION CHALLENGES

**Strongest Evidence**
- Prolonged Exposure (PE)
- Cognitive Processing Therapy (CPT)
- Eye Movement Desensitization Reprocessing (EMDR)

**Sufficient Evidence to Recommend**
- Specific CBTs for PTSD
- Brief Eclectic Psychotherapy (BEP)
- Narrative Exposure Therapy (NET)
- Written Exposure Therapy (WET)

**Insufficient Evidence to Recommend**
- Dialectical Behavior Therapy (DBT)
- Skills Training in Affective and Interpersonal Regulation (STAIR)
- Acceptance and Commitment Therapy (ACT)
- Seeking Safety

https://www.healthquality.va.gov/guidelines/MH/ptsd/
What About Comorbid Problems?

“We recommend that the presence of co-occurring disorder(s) not prevent patients from receiving other VA/DoD guideline-recommended treatments for PTSD.”

- Personality disorders
- Suicidal ideation
- Dissociation
- Anger

- Substance use disorders
- Psychotic disorders
- Severe mental illness
- Depression

https://www.healthquality.va.gov/guidelines/MH/ptsd/
Use of EBTs for PTSD in VA

Less than 15% of treatment-seeking Veterans with PTSD receive recommended EBTs.

Clinician reasons for not using CPT/PE:

- **Safety Concerns**
  - e.g., recent suicide attempts or self-injury, acute suicide risk, frequent crisis care

- **Comorbid Problems**
  - e.g., personality disorders, SUD, psychotic disorders, dissociation, ongoing trauma

- **Insufficient coping skills**
  - e.g., poor emotion regulation and distress tolerance

Lu et al., 2016; Watts et al., 2014; Cook et al., 2016; Hamblen et al., 2015; Osei-Bonsu et al., 2017; Raza & Holohan, 2015; Zubkoff et al., 2016
A Tension in Treatment for PTSD and Comorbid Problems

**Treatment Guidelines**
Use trauma-focused EBTs for all PTSD patients regardless of comorbidities

**Clinical Practice**
Do not use trauma-focused EBTs for PTSD patients with serious comorbid problems

**Synthesis**
“Arguments about what works for whom are often confounded by lack of clarity regarding the stage of disorder the treatment is intended to address.”
(Linehan, 1999)
# Determining the Level of Disorder

<table>
<thead>
<tr>
<th>Domain</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imminent Threat</strong></td>
<td>The presence of behaviors that create a high risk of imminent death or injury</td>
</tr>
<tr>
<td><strong>Disability</strong></td>
<td>The inability to fulfill important societal and/or social roles</td>
</tr>
<tr>
<td><strong>Complexity</strong></td>
<td>The number of co-occurring mental disorders and problem behaviors</td>
</tr>
<tr>
<td><strong>Severity</strong></td>
<td>The frequency and intensity of psychological and functional problems</td>
</tr>
<tr>
<td><strong>Pervasiveness</strong></td>
<td>The degree to which problems are limited to a specific context versus widespread</td>
</tr>
</tbody>
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Linehan, 1999
Levels of Disorder

**Level 1:** BEHAVIORAL DYSCONTROL*

**Level 2:** QUIET DESPERATION*

**Level 3:** PROBLEMS IN LIVING

**Level 4:** INCOMPLETENESS

* Includes comorbid PTSD + BPD patients
Application to a PTSD+BPD Patient

PTSD
- Borderline personality disorder
- Social anxiety disorder
- Moderate dissociation
- Poor physical health
- Emotion dysregulation
- Interpersonal problems
- Negative self-concept

Depression

Substance dependence
- Anorexia nervosa
- Treatment non-compliant
- Psychiatric disability
- Housing and financial insecurity
- High utilizer of crisis services
- Repeated and recent suicide attempts
- Self-injury 2-3x/week
- Monthly suicide crises

Level 2a

Level 2b

Level 1

Level 1
RESEARCH-SUPPORTED TREATMENTS FOR PTSD + BPD
Study Selection Criteria

Includes and updates studies in Harned (2014) review

• Randomized controlled trials (RCTs) of psychotherapies that:
  – Include patients with BPD traits or diagnosis, and
  – Report PTSD outcomes specific to BPD patients
SINGLE-DIAGNOSIS PTSD TREATMENTS
Single-Diagnosis PTSD Treatments

Treatment of just one disorder.

- Focus is on treating PTSD with trauma-focused interventions.
- These treatments may be used with patients with BPD, but BPD is not directly targeted.
- All the VA/DoD recommended treatments for PTSD are single-diagnosis treatments.
Overview of Treatments

Prolonged Exposure
(Foa et al., 2019)
• 8-15 sessions
• In vivo & imaginal exposure

Cognitive Processing Therapy
(Resick et al., 2017)
• 12 sessions
• Cognitive therapy with or without written accounts
## Prolonged Exposure (PE)
(Feeny, Zoellner, & Foa, 2002)

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Parent RCT</strong></td>
<td>Foa, Dancu, Hembree et al., 1999</td>
</tr>
<tr>
<td><strong>Treatments</strong></td>
<td>9 twice-weekly sessions of PE, stress inoculation training (SIT), or PE+SIT</td>
</tr>
<tr>
<td><strong>Inclusion criteria</strong></td>
<td>(1) Adult female (2) PTSD is the primary diagnosis, (3) index trauma is a sexual or non-sexual assault after age 16</td>
</tr>
<tr>
<td><strong>Exclusion criteria</strong></td>
<td>(1) Suicide risk (ideation with plan and intent), (2) recent parasuicidal behavior (past 3 mos), (3) current abusive relationship, (4) psychotic disorder (5) bipolar disorder, (6) current substance dependence</td>
</tr>
<tr>
<td><strong>N in 2° analysis</strong></td>
<td>58 treatment completers from all conditions</td>
</tr>
<tr>
<td><strong>N in BPD group</strong></td>
<td>9 (15%) met full or partial criteria for BPD based on SCID-II</td>
</tr>
</tbody>
</table>

### Main Findings
- Across treatments, borderline personality characteristics (BPC) were not significantly related to PTSD or other outcomes.
- At post-treatment, 56% of those with BPC no longer met criteria for PTSD.
- Patients with BPC were less likely than those without BPC to achieve good end-state functioning (11% vs. 51%).
Cognitive Processing Therapy (CPT+A)
(Holder, Holliday, Pai, & Surís, 2017)

<table>
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<tr>
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<tbody>
<tr>
<td>Treatments</td>
<td>12 sessions of CPT+A or Present Centered Therapy</td>
</tr>
<tr>
<td>Inclusion criteria</td>
<td>(1) Female and male veterans, (2) PTSD, (3) index trauma is military sexual trauma (MST) from &gt; 3 months ago, (4) &gt;1 clear trauma memory, (5) stable psychiatric meds for at least 6 months</td>
</tr>
<tr>
<td>Exclusion criteria</td>
<td>(1) Prominent suicidal or homicidal features, (2) recent substance dependence, (3) current psychosis, (4) current unstable bipolar disorder, (5) current cognitive impairment, (6) in violent relationship</td>
</tr>
<tr>
<td>N in 2º analysis</td>
<td>27 female veterans in CPT+A condition</td>
</tr>
<tr>
<td>N in BPD group</td>
<td>7 (25.9%) with BPD based on electronic medical record review</td>
</tr>
</tbody>
</table>

Main Findings

- No significant differences were found between those with and without BPD in treatment completion, number of sessions attended, or rate of improvement in PTSD.
## CPT+A and PE

(\textsuperscript{a}Clarke, Rizvi, & Resick, 2008; \textsuperscript{b}Bovin, Wolf, & Resick, 2017)

<table>
<thead>
<tr>
<th>Parent RCT</th>
<th>Resick, Nishith, Weaver et al., 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatments</td>
<td>13 hours of CPT+A or PE</td>
</tr>
<tr>
<td>Inclusion criteria</td>
<td>(1) Adult female, (2) PTSD, (3) index trauma is a completed rape in adulthood or childhood (not including incest), (4) stable psychiatric medications</td>
</tr>
<tr>
<td>Exclusion criteria</td>
<td>(1) suicidal intent, (2) current parasuicidal behavior, (3) current substance dependence, (4) current psychosis, (5) current abusive relationship/stalking</td>
</tr>
<tr>
<td>N in 2\textdegree analysis</td>
<td>131 at baseline, 79 at long-term follow-up ($M = 6$ years post-treatment)</td>
</tr>
<tr>
<td>N in BPD group</td>
<td>39 (25.2%) had a clinical level of borderline personality characteristics based on self-report \textit{[Schedule for Adaptive and Nonadaptive Personality]}</td>
</tr>
</tbody>
</table>

### Main Findings

- Across treatments, borderline personality characteristics were unrelated to treatment dropout or outcomes from baseline to 9-month follow-up\textsuperscript{a}
- Greater PTSD improvement predicted greater improvement in borderline personality characteristics at long-term follow-up\textsuperscript{b}
Summary of Findings

It is feasible and safe to implement PE and CPT with BPD patients who meet the eligibility criteria for these treatments.

BPD does not impact the rate of change in PTSD or other outcomes during these treatments.

Using these treatments to reduce PTSD severity may lead to improvements in BPD.

These treatments may be insufficient for many BPD patients (~90% have poor end-state functioning after treatment).
Limitations

All studies included subthreshold BPD or did not assess the full BPD diagnosis.

Two studies had very small samples (<10 BPD patients) and limited statistical power to detect group differences.

Two studies combined data across multiple treatments, making it impossible to determine treatment-specific effects (e.g., for PE).

All studies did not allow index traumas that occurred in childhood and/or involved incest.

All studies used eligibility criteria likely to exclude many BPD patients, particularly those with a severe level of disorder.
Contraindications for PE & CPT

- Suicidal or homicidal intent
- Recent suicide attempt (past 3 months)
- Recent self-injury (past 3 months)
- Psychotic disorder
- Bipolar disorder
- Current substance dependence
- Current abusive relationship
PARALLEL TREATMENTS
Parallel Treatments

Comorbid disorders are treated in separate treatments.

• PTSD and comorbid disorders are each treated but in separate treatments by separate providers.
• Separate providers may or may not be part of the same comprehensive treatment team or agency.
CBT for PTSD and Severe Mental Illness
(Mueser, Rosenberg, & Rosenberg, 2009)

CBT for PTSD
(12-16 sessions of psychoeducation & cognitive restructuring)

Standard treatment for Severe Mental Illness
(individual and group therapy, vocational rehab, pharmacology)
# CBT for PTSD and SMI
(Kredlow, Szuhan, Lo, Xie, Gottlieb, Rosenberg, & Mueser, 2017)

<table>
<thead>
<tr>
<th>Parent RCTs</th>
<th>Study 1: Mueser et al., 2008, Study 2: Mueser et al., 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatments</td>
<td>Study 1: CBT for PTSD vs. TAU, Study 2: CBT for PTSD vs. brief psychoed</td>
</tr>
<tr>
<td>Inclusion criteria</td>
<td>(1) Age 18+, (2) PTSD, (3) severe mental illness (major depression, bipolar, schizophrenia, or schizoaffective disorder)</td>
</tr>
<tr>
<td>Exclusion criteria</td>
<td>(1) Psychiatric hospitalization in past 3 months, (2) suicide attempt in past 3 months, (3) current substance dependence</td>
</tr>
<tr>
<td>Total N</td>
<td>Study 1: n=108, Study 2: n = 201</td>
</tr>
<tr>
<td>N in 2° analysis</td>
<td>Study 1: n=27 (25%) with BPD, Study 2: n=55 (27%) with BPD via SCID-II</td>
</tr>
</tbody>
</table>

## Main Findings

- Among BPD patients, CBT had low rates of dropout (14-26%) and PTSD symptom exacerbation (9-12%).
- CBT was superior to TAU but not brief psychoeducation in reducing PTSD and depression among BPD patients.
- After completing CBT, 75-77% of BPD patients still met criteria for PTSD.
PHASE-BASED PTSD TREATMENTS
Phase-Based PTSD Treatments

Sequential treatment of one problem, then another.

- Phase-based treatments typically include an initial phase focused on stabilization and skills acquisition.
- The second phase involves trauma-focused treatment.
- The third phase typically addresses reintegration and improving psychosocial functioning.
DBT for Complex PTSD (DBT-PTSD)
(Bohus, Schmahl, Fydrich et al., 2019)

Phase 1
- Commitment (5 sessions)
  - Trauma Model and Motivation (7 sessions)
  - Skills (4-7 sessions)

Phase 2
- Skills-assisted exposure (15 sessions)

Phase 3
- Radical acceptance (2 sessions)
  - Regain your life (8 sessions)
  - Farewell (1 session)

DBT-PTSD is a modular, phase-based treatment that combines strategies from DBT, trauma-focused treatments, Acceptance and Commitment Therapy, and Compassion-Focused Therapy.
**DBT-PTSD**  
(Bohus, Dyer, Priebe et al., 2013)

<table>
<thead>
<tr>
<th>Treatments</th>
<th>DBT-PTSD vs. Treatment as Usual-Waitlist (TAU-WL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting</td>
<td>12-week hospital-based residential program</td>
</tr>
<tr>
<td>Inclusion criteria</td>
<td>(1) Adult female (2) PTSD is the primary diagnosis, (3) index trauma is childhood sexual abuse, (4) at least one of the following conditions: eating disorder, major depressive disorder, substance abuse, and/or 4+ BPD criteria</td>
</tr>
<tr>
<td>Exclusion criteria</td>
<td>(1) Serious suicide attempt in the past 3 months, (2) current substance dependence, (3) schizophrenia, (4) body mass index &lt; 16.5</td>
</tr>
<tr>
<td>Sample size</td>
<td>n = 33/74 (44.6%) met full criteria for BPD based on the IPDE</td>
</tr>
</tbody>
</table>

**Main Findings**

- DBT-PTSD was superior to TAU-WL in improving PTSD, depression, and global functioning, but not global symptom severity, dissociation, or BPD.
- Outcomes were comparable for patients with and without BPD.
- At follow-up, 41% of those with BPD no longer met criteria for PTSD.
# DBT-PTSD

(Bohus, Schmahl, Fydrich et al., 2019)

<table>
<thead>
<tr>
<th>Treatments</th>
<th>DBT-PTSD vs. extended CPT-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting</td>
<td>45-week outpatient program</td>
</tr>
<tr>
<td>Inclusion criteria</td>
<td>(1) Adult female (2) PTSD is the primary diagnosis, (3) index trauma is childhood sexual or physical abuse, (4) ≥3 BPD criteria including affective instability</td>
</tr>
<tr>
<td>Exclusion criteria</td>
<td>(1) Serious suicide attempt in past 2 months, (2) current substance dependence, (3) schizophrenia, (4) bipolar I disorder, (5) severe psychopathology requiring priority treatment, (6) severe unstable life situations (e.g., homelessness, ongoing abuse), (7) pregnancy</td>
</tr>
<tr>
<td>Sample size</td>
<td>n = 93/193 (48%) met full criteria for BPD based on the IPDE</td>
</tr>
</tbody>
</table>

**Main Findings**

- DBT-PTSD was superior to CPT-C in improving PTSD/complex PTSD, behavioral dysregulation, and retaining patients in treatment.
- BPD was related to higher dropout in both treatments (13-21% higher).
- Dropout was extremely high when patients met 8 or 9 BPD criteria (DBT-PTSD = 63% vs. CPT-C = 86%).
- PTSD and other outcomes specific to BPD patients are not yet available.
Summary of Findings

DBT-PTSD results in similar improvements in PTSD for patients with and without BPD when delivered in a residential setting.

Most BPD patients (~60%) continue to meet criteria for PTSD after DBT-PTSD residential treatment.

DBT-PTSD residential treatment is not better than a treatment-as-usual waitlist in reducing BPD severity.

BPD patients are more likely than those without BPD to drop out of DBT-PTSD when delivered in an outpatient setting.
Limitations

Both studies did not formally diagnose or require complex PTSD.

Both studies used eligibility criteria likely to exclude BPD patients with the most severe level of disorder.
Integrated Treatments

Treatment of comorbid disorders at the same time.

- Integrated treatments are intended to flexibly and comprehensively address the full range of problems with which patients with PTSD and BPD present.
- Includes direct and concurrent targeting of PTSD and BPD as well as the factors that may explain the relationships between them.
Recommended Strategies for Addressing PTSD in DBT for BPD
(Linehan, 1993)

Stage 1 DBT
- Primary target is behavioral dyscontrol.
- Focus is on increasing behavioral skills.
- Use a present-focused approach to address PTSD-related problems.
- Avoid emotionally processing past trauma.

Stage 2 DBT
- Primary target is PTSD.
- Use DBT exposure-based procedures in a very focused fashion, -- or --
- Integrate an established exposure-based PTSD treatment into DBT.
PTSD Outcomes in DBT

• Among suicidal and self-injuring women with BPD and PTSD, **13-33%** achieve diagnostic remission from PTSD during one year of DBT. (Harned et al., 2008; Harned et al., 2014)

• Greater PTSD severity predicts worse outcomes during DBT.
  – Less improvement in suicidal and self-injurious behaviors (Barnicot & Priebe, 2013; Harned et al., 2010; Barnicot & Crawford, 2018)
  – Lower likelihood of eliminating acute suicide risk (high suicidal ideation + intent + plan) (Harned et al., 2010)
  – More severe BPD symptoms at post-treatment (Barnicot & Crawford, 2018)
An Integrated Approach to Treating PTSD in DBT
(Harned, Korslund, Foa, & Linehan, 2012)

Stage 1: Severe Behavioral Dyscontrol
- Behavioral Control & Skill Acquisition

Stage 2: Trauma & Quiet Desperation
- Emotional Processing of Trauma

Stage 3: Problems in Living
- Building a Life without PTSD

DBT PE Protocol

Standard DBT
### DBT + DBT PE
(Harned, Korslund, & Linehan, 2014)

<table>
<thead>
<tr>
<th>Treatments</th>
<th>DBT vs. DBT + DBT PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting</td>
<td>1-year outpatient treatment</td>
</tr>
<tr>
<td>Inclusion criteria</td>
<td>(1) Adult female (2) BPD, (3) PTSD, (4) recent (past 8 weeks) and recurrent (2+ episodes in past 5 years) suicide attempts and/or NSSI</td>
</tr>
<tr>
<td>Exclusion criteria</td>
<td>(1) Psychotic disorder, (2) bipolar disorder, (3) legally mandated to treatment, (4) IQ &lt; 70, (5) required primary treatment for another debilitating condition</td>
</tr>
<tr>
<td>Sample size</td>
<td>n = 26 (17 in DBT + DBT PE, 9 in DBT)</td>
</tr>
</tbody>
</table>

**Main Findings**

- Treatment dropout did not differ between conditions (41-43%).
- 47% of the ITT sample and 80% of treatment completers initiated the DBT PE protocol. Of those who initiated DBT PE, 75% completed it.
- Patients who completed DBT + DBT PE were 2.4x less likely to attempt suicide and 1.5x less likely to engage in NSSI than those who completed DBT.
- Diagnostic remission from PTSD was higher in DBT + DBT PE than DBT (ITT = 58% vs. 33%, Completers = 80% vs. 40%).
- There were large effects in favor of DBT + DBT PE for improvements in all secondary outcomes among treatment completers.
Summary of Findings

Standard DBT without targeted PTSD treatment is not sufficient to improve PTSD for a majority of suicidal and self-injuring BPD patients.

When PTSD is not treated, it leads to worse outcomes in DBT.

It is feasible to implement the DBT PE protocol for a majority of suicidal and self-injuring BPD patients who complete DBT.

Adding the DBT PE protocol to DBT improves PTSD and other outcomes while also reducing the risk of suicide attempts and NSSI.
Limitations

Only 1 RCT of DBT + DBT PE has been conducted and it used a small sample.

There was a higher than usual rate of treatment dropout in both conditions due to one non-adherent therapist.

Patients with psychotic and bipolar disorders were excluded.
CONCLUSIONS AND FUTURE DIRECTIONS
PTSD can be safely and effectively treated among people with BPD.
Which PTSD Treatment is Appropriate Depends on...
Research-Supported Treatments by Level of Disorder

Mild Level of Disorder (Level 2a)
- Single-Diagnosis Treatments (PE & CPT)
- Partial or full BPD
- No acute suicide risk
- No recent suicide attempt or NSSI
- No severe comorbid disorders
- PTSD is the primary diagnosis

Moderate Level of Disorder (Level 2b)
- Phase-Based & Parallel Treatments (DBT-PTSD; CBT for PTSD and SMI)
- Partial or full BPD
- No recent suicide attempts
- Includes recent NSSI
- May include some severe comorbid disorders
- PTSD may not be primary diagnosis

Severe Level of Disorder (Level 1)
- Integrated Treatments (DBT + DBT PE)
- Full BPD diagnosis
- Includes recent suicide attempts, NSSI, and acute risk
- Includes severe comorbid disorders
- PTSD is not the primary problem
Future Directions

• More rigorous and large-scale RCTs are needed to replicate and extend findings.
  – Also consider other PTSD treatments (e.g., EMDR, STAIR-NT, NET, WET)

• A personalized intervention approach should be used to determine:
  – Which BPD patients need which treatment approaches (single-diagnosis, parallel, phase-based, integrated)?
  – Which specific PTSD treatments are most effective for BPD patients of varying levels of disorder?
THANK YOU!

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