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UNIVERSITY of WASHINGTON  
Center for Behavioral Technology

## The Impact of PTSD Severity on Treatment Outcomes in DBT with and without the DBT Prolonged Exposure Protocol

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- This project was funded by a grant from NIMH (R34MH082143) to the first author.
- Dr. Harned is a trainer and consultant for Behavioral Tech, LLC.

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2

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## The Impact of PTSD in BPD

- 30-50% of individuals with BPD also have PTSD (e.g., Harned et al., 2010; Pagura et al., 2010; Zanarini et al., 2004)
- PTSD is associated with greater impairment:
  - Suicidal and self-injurious behavior
  - Depression
  - Anxiety
  - Poorer physical health
  - Poorer global functioning

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(e.g., Harned et al., 2010; Zlotnick et al., 2003; Bolton et al., 2006; Rusch et al., 2007)  
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## The Impact of PTSD in DBT for BPD

- Baseline PTSD diagnosis:
  - Mixed results as a predictor of improvements in suicidal and self-injurious behavior; unrelated to improvements in BPD severity (Barnicot & Priebe, 2013; Boritz, Barnhart, & McMain, 2016; Harned et al., 2010)
- Baseline PTSD severity:
  - Predicts lower likelihood of eliminating acute suicide risk and suicidal and self-injurious behavior (Harned et al., 2010)
- No research has evaluated the longitudinal course of PTSD as a time-varying predictor of outcomes in DBT.

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4

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## Study Aims

- Evaluate the time-varying impact of PTSD severity on outcomes during DBT with and without targeted PTSD treatment.
  - H1: Higher average PTSD severity will predict worse outcomes at subsequent time points.
  - H2: Greater within-person improvements in PTSD severity will predict better outcomes at subsequent time points.

\*Both of the above will be true irrespective of treatment condition.

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5

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## Secondary Analysis

- RCT of DBT (n=9) vs. DBT + DBT PE (n=17)
- Inclusion criteria:
  - Adult females, BPD, PTSD, recent/recurrent suicide attempt and/or serious NSSI
- Exclusion criteria:
  - Bipolar or psychotic disorders, IQ<70, mandated to treatment

(Harned, Korslund, & Linehan, 2014)

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6

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## Sample Characteristics (n=26)

- Mean age = 32.6 yrs, 80.8% Caucasian
- Past year self-injurious behavior:
  - 57.7% attempted suicide (M=2.4 attempts)
  - 96.2% engaged in NSSI (M=63.3 episodes)
- Trauma history:
  - M=11.4 types of lifetime trauma, onset at 6.2 yrs
  - Primary index trauma = CSA (50%)
- Current Axis I and II diagnoses: M = 7.0
- Global Assessment of Functioning: M = 43.0

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7

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## Measures

- Time-Lagged Predictor
  - PTSD Symptom Scale – Interview (Foa et al., 1993)
- Outcomes
  - Suicide Attempt Self-Injury Interview (Linehan et al., 2006)
  - Suicidal Behaviors Questionnaire (Linehan, unpublished)
  - Dissociative Experiences Scale (Carlson & Putnam, 1993)
  - Hamilton Rating Scale for Depression (Hamilton, 1960)
  - Brief Symptom Inventory - Global Severity Index (Derogatis, 1993)
  - Global Social Adjustment (Keller et al., 1987)
  - CDC Health-Related Quality of Life (Moriarty, Zack, & Kobau, 2003)

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## Analytic Approach

- Time-lagged HLM and GEE models



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8

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## Model Effects

- Time
- Time-lagged predictors (Enders & Tofigi, 2007)
  - Between-person variance in average PTSD severity
    - PTSD severity grand mean centered
  - Between-person variance in average PTSD severity X Time
    - Differential rate of change over time by average PTSD severity
  - Within-person change in PTSD severity
    - PTSD severity centered at the individual level

\*Treatment condition did not significantly interact with time-lagged predictors so was not included in the final models.

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10

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## Results

	Time	Between-Person Factors		Within-Person Factor
		Average PTSD severity	Average PTSD severity X Time	Change in PTSD severity
Suicide attempts & NSSI	<b>&lt;.001</b>	<b>&lt;.001</b>	<b>&lt;.05</b>	.55
Suicidal ideation	<b>.02</b>	<b>.04</b>	.79	<b>&lt;.05</b>
Dissociation	.26	<b>.001</b>	.13	<b>.009</b>
Depression	<b>.002</b>	<b>&lt;.001</b>	.48	<b>.001</b>
Global severity	<b>.04</b>	<b>&lt;.001</b>	.52	<b>&lt;.001</b>
Social adjustment	<b>.003</b>	.08	.35	<b>.02</b>
Health-related quality of life	.19	<b>.02</b>	.30	<b>&lt;.001</b>

\*Data are p-values

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11

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## Summary of Findings

- Clients with more severe PTSD had poorer outcomes at subsequent time points.
  - Exception: social adjustment
- Clients with more severe PTSD had a slower rate of change in suicide attempts and NSSI.
- Clients with greater improvements in PTSD reported better outcomes at subsequent time points.
  - Exception: suicide attempts and NSSI

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## Conclusions

- Clients with more severe PTSD are likely to be more impaired in a variety of areas during treatment.
- When PTSD severity is reduced, it is associated with subsequent improvements in multiple outcome domains.

### THEREFORE

**It is critical to treat PTSD during DBT.**

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