

Research Update on the Effectiveness of DBT for Adolescents at Risk for Suicide

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Adolescent Suicide: Overview

- Suicide is 3rd leading cause of death among 10-14 year-olds and the 2nd leading cause of death among 15-24 year olds in the United States (CDC, 2017).
- 17.7% (close to 1 in 5) of adolescents in the U.S. report seriously considering suicide in the past year (YRBS; Kann, 2016)
- 8.6% (close to 1 in 10) report a suicide attempt in the past year (YRBS; Kann, 2016)

Background

- Despite the severity of the problem, there is little guidance from the literature on how to best treat suicidal adolescents.
- Only 12 published RCTs of treatments specifically targeting adolescent suicide attempters with repeat suicide attempts as an outcome variable.
- 7 of these trials had significant results

Why are there so few studies?

- Suicide is 10th leading cause of death in the U.S.
 - 51 RCTs on suicidal behavior in adults (Cochrane Central Register of Controlled Trials, 2009)
 - 1,092 RCTs on liver disease (12th leading cause of death)
 - 1,049 RCTs on hypertension (13th leading cause of death)
 - 12 published RCTs on adolescent suicidal behavior (2nd leading cause of death)
- Anxiety associated with working with suicidal subjects/fears about liability
 - Even greater anxiety with adolescents
- Need for expertise and resources needed to safely manage suicidal subjects
- Large sample sizes needed to detect significant differences in suicide-related outcomes

Definitions

- **Suicide attempt:** A potentially self-injurious behavior, associated with some evidence of intent to die
- **Non-suicidal self-injury behavior:** Self-injurious behavior not associated with intent to die (intent may be to relieve distress or communicate with another person), often called “self-mutilation,” “suicide gesture.”
- **Self-harm:** broader category including all intentional self-injury, with or without intent to die (i.e., SA and NSSI).

7 RCTs demonstrating significant decreases in suicide attempts:

1. **Multi-systemic therapy** was shown to be more effective than hospitalization at decreasing rates of youth-reported suicide attempts (Huey et al., 2004).
2. **Developmental group therapy** was shown to be more effective than routine care at decreasing deliberate self-harm (Wood et al., 2001).
3. **Mentalization-based treatment** was shown to be more effective than TAU at decreasing self-harm (Rossouw & Fonagy, 2012).
4. **Integrated CBT** for co-morbid suicidality and substance abuse was shown to be more effective than TAU at decreasing suicide attempts (Esposito-Smythers et al., 2011).
5. **Dialectical Behavior Therapy** was shown to be more effective than enhanced usual care at decreasing self-harm behaviors (Mehlum et al., 2014).
6. **Parent-only psychoeducation: Resourceful Adolescent Parent Program (RAP-P)** was shown to be more effective than routine care at decreasing self-harm behaviors (Pineda & Dadds, 2013)
7. **The SAFETY (Safe Alternatives for Teens and Youth) intervention** was shown to result in significantly longer time to suicide attempt than enhanced usual care (Asarnow et al., (2017)

Background cont.

- No published replications.
- At present, there are no well-established empirically-supported treatments for adolescent with suicidal and self-harm behaviors.

DBT is a promising treatment for suicidal youth:

- Dialectical Behavior Therapy (DBT) with adults has multiple RCTs supporting its efficacy in decreasing suicide attempts in adults.
- DBT has been adapted for suicidal and self-harming adolescents (Miller, Rathus, & Linehan, 2007) and has evidence supporting its effectiveness with this population in non-randomized trials (Rathus & Miller, 2002) and one published RCT (Mehlum, 2014).
- In response to clinical need, DBT is being widely used with adolescents.
- Additional RCTs on DBT with highly suicidal adolescents are needed as a critical next step in research on adolescent suicide prevention.

Norway RCT of DBT with Adolescents

Mehlum et al., (2014) JAACAP

- Subjects: N=77 adolescents, ages 12-18, receiving community outpatient mental health services in Oslo, Norway.
- Inclusion criteria: 2 prior episodes of self-harm, one in the past 4 months, 2 DSM IV BPD criteria (in addition to self-harm) at threshold or sub-threshold
- Did not separate suicide attempts and NSSI
- 19 weeks of DBT, including weekly individual therapy and multifamily group, family and telephone coaching as needed.
- Control condition: Enhanced usual care, 1 weekly therapy session per week of any type (psychodynamic or CBT). Individual only, no group.
- Follow-up at 9, 15, 19 weeks.
 - Significantly greater decrease in self-harm behaviors over the course of treatment in DBT versus EUC
 - Greater drop in SI at the end of treatment (last 4 weeks) for DBT
 - Greater decrease in interviewer-rated depression (but not self-report)

Other DBT RCTs

- Goldstein et al., (2014) - Bipolar Disorder
- Perepletchikova et al., (2014) - Disruptive Mood Dysregulation Disorder in children
- Cooney et al., (2010) – youth in New Zealand with history of SA or NSSI

Prior Research on DBT with Adolescents

- None of these studies have shown significant reductions in suicide attempts.

CARES Study

- First RCT of DBT with highly suicidal adolescents
- Funded by NIMH (R01 MH093898)
- Multi-site study:
 - Seattle
 - University of Washington, PI: Marsha Linehan, Ph.D.
 - Seattle Children's Hospital, PI: Elizabeth McCauley, Ph.D.
 - Los Angeles
 - Harbor-UCLA Medical Center/LA Biomed, PI: Michele Berk, Ph.D.
 - UCLA School of Medicine, PI: Joan Asarnow, Ph.D.

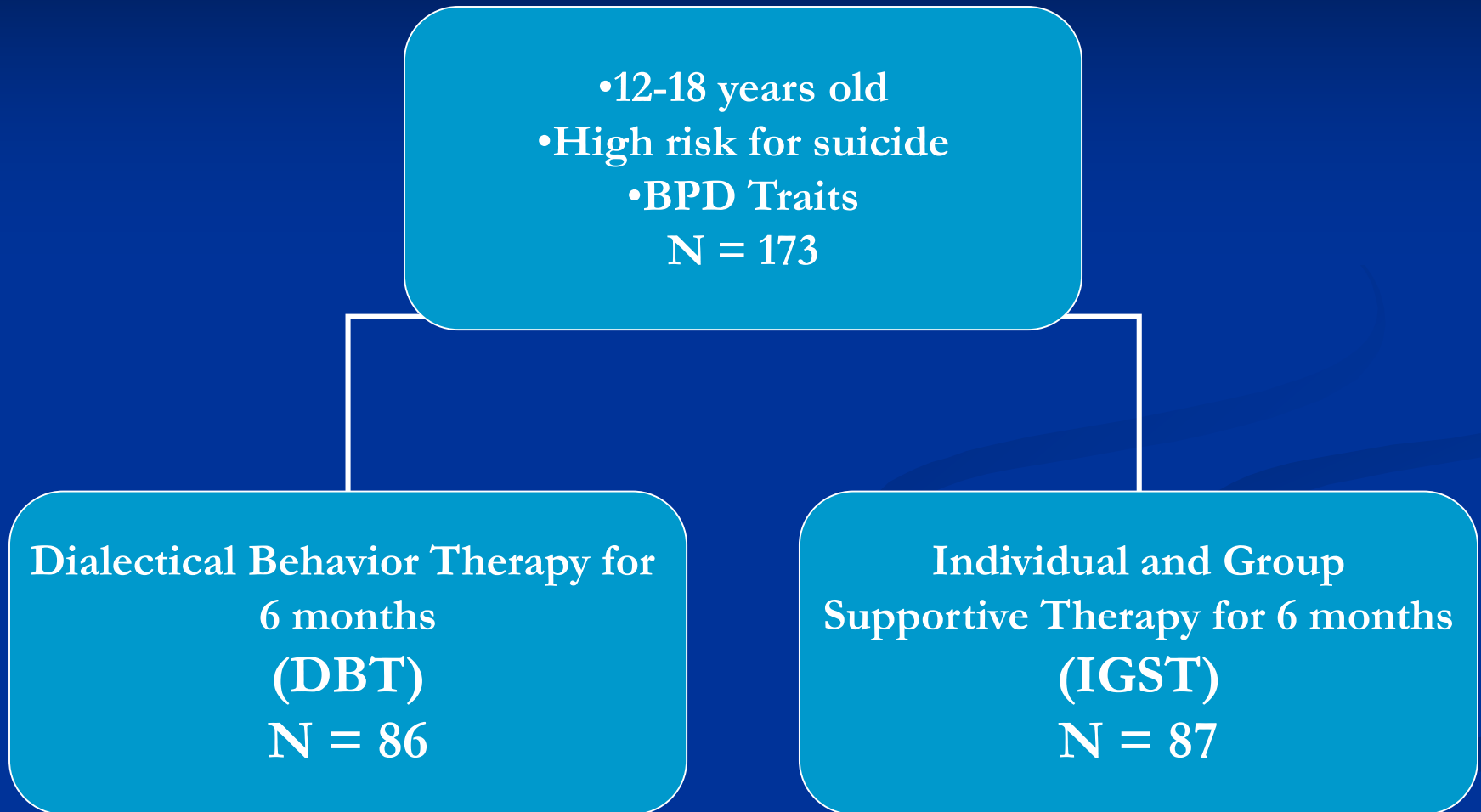
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CARES Research Team – Seattle

- Many undergraduate students and volunteers!
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CARES Study Design



*Follow-up assessments conducted at 3, 6, 9, and 12 months

CARES Study Design – cont.

- Primary outcome variable is suicide attempts.
- Sample size of $N=173$ provides sufficient power to examine this outcome.
- Comparison condition of another active treatment approach provides an internal validity control.
- Subjects selected to be at high risk of suicide.

Inclusion Criteria

- 12-18 years old
- **High risk of suicide**
 - At least one life-time suicide attempt.
 - Elevated suicide ideation within the past month (operationalized as ≥ 24 on the SIQ-Jr).
 - Recurrent intentional self-injury (at least 3 lifetime self-injuries, including at least one in the 12 weeks before the telephone screening).
 - Meets at least 2 BPD criteria besides the recurrent intentional self-injury criterion.
- At least one family member or responsible adult agrees to participate in assessments and in the multi-family group therapy if required by condition assignment.
- Lives within commuting distance.
- Youth must speak English and parent must speak either English or Spanish.

Exclusion Criteria

- IQ less than 70.
- Court ordered to treatment.
- Psychiatric or medical symptoms (such as acute psychosis, mania, neurological impairment, substance dependence or abuse, severe eating disorders) that would interfere with the ability of the youth to participate in the assessments and treatment.

Demographics

- Gender
 - 95% Female
- Ethnicity:
 - 27% Hispanic/Latino
 - 52% at Harbor-UCLA
- Race
 - 76% Caucasian
 - 5% Black/African-American
 - 5% Asian
 - 13% More than one race
 - 2% Other

Demographics – cont.

- High risk sample:
 - 60% more than one lifetime suicide attempt
 - 61% > 6 lifetime NSSI episodes

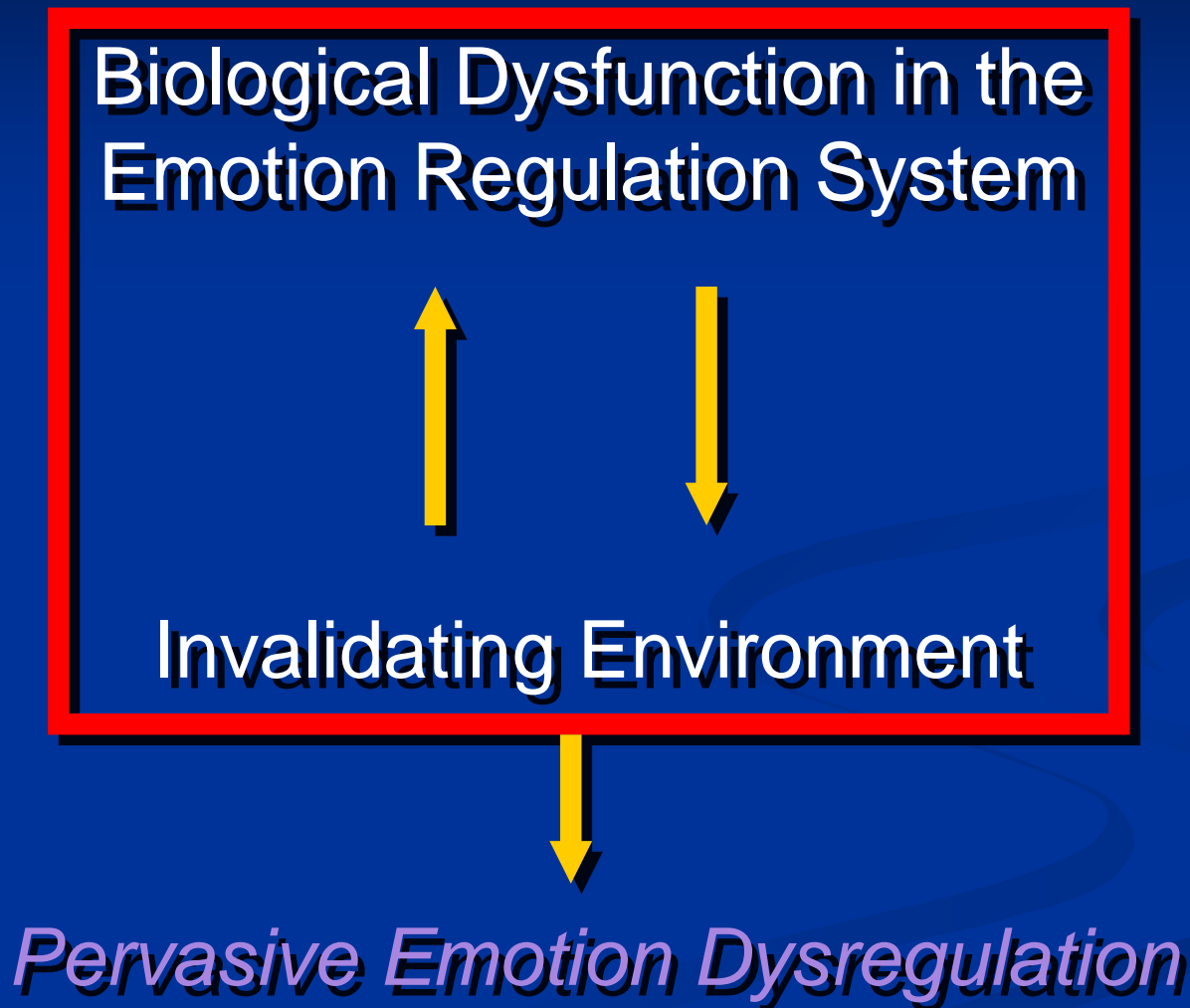
CARES Study DBT

- Six months of standard DBT
 - Individual therapy
 - Multi-family Skills Group
 - Telephone Coaching (for both teen and parent)
 - Consultation Team
- Up to 7 family sessions
- Adherence measured using the University of Washington DBT Adherence Rating Scale

What is DBT?

- Cognitive-behavioral treatment approach developed by Marsha Linehan, Ph.D. for treating chronically suicidal and self-harming patients.
- Targets emotion dysregulation as the primary cause of suicidal and self-harm behaviors.
- Is a multi-component treatment, including individual therapy, skills group therapy, availability of telephone coaching and a consultation team for therapists.

Biosocial Theory of BPD



Emotional Vulnerability

- High Sensitivity
 - Immediate Reactions
 - Low threshold for emotional reaction
- High reactivity
 - Extreme Reactions
 - High Arousal dysregulates cognitive processing
- Slow return to baseline
 - Long-lasting reactions
 - Contributes to high sensitivity to next emotional stimulus

Invalidating Environment

- The caregiver responds to the child's expression of emotion in ways that are “inconsistent, inappropriate to the emotion expressed, and/or trivializing of the emotional experience (Linehan, 1993).”
- “You shouldn’t be so upset.”
- “Get over it.”
- “You are over-reacting.”
- “Snap out of it.”

Effects of the Invalidating Environment

- Individuals do not learn to accurately label emotions
- Individuals do not learn how to tolerate distress
- Individuals learn to self-invalidate
- Individuals learn that only escalated expressions of negative affect are taken seriously

Summary of DBT Theory

- Suicidal/self-injurious individuals with BPD traits are biologically predisposed to experiencing very strong emotions.
- These emotions were invalidated by caregivers.
- Hence, these individuals experience very strong negative emotions but know few skills to manage them.
- Suicidal/self-injurious behavior is used as a maladaptive means of coping with negative emotions.
- DBT reduces suicidal/self-injurious behaviors by teaching skills for coping with emotion dysregulation safely and effectively.

Standard Adolescent DBT Components

- Outpatient Individual Psychotherapy
 - Behaviorally-oriented
 - “validation and change”
- Outpatient Multi-family Group Skills Training
- Therapists’ Consultation Meeting (DBT Team)
- Telephone Consultation
- Family therapy and parent sessions as needed

Modifications of DBT for Adolescents

- Very few changes from adult version
- Biosocial theory rooted in developmental psychopathology
- Inclusion of families in skills training/family therapy
- Direct intervention in the invalidating environment
- Adding new skills relevant to families (Middle Path; Miller, Rathus & Linehan, 2007)
- Abbreviating treatment length (from 1 year to 4 to 6 months)
- Including skills examples that are relevant to teens

CARES Study IGST

- Adaptation of manuals designed by David Brent, M.D. for depressed youth and by Judy Cohen, M.D., for traumatized youth. Based on idea that suicidal teens often report feeling isolated, misunderstood, unloved and unwanted.
- Individual and group therapy (teens only).
- Up to 7 parent sessions allowed.
- Opportunity to share their innermost concerns and feelings with a therapist who provides unconditional positive regard and acceptance may provide a corrective experience.
- Group therapy also focused on providing a sense of belonging and feeling of being an “insider” with other teens.
- Overlap with validation component of DBT.
- Overlap with standard community care.
- Adherence ratings.

Primary Hypotheses

1. Suicidal/Self-Harm Behaviors

- Suicide attempts will be less likely in DBT vs. IGST during the treatment and follow-up period.
- NSSI will be less likely in DBT vs. IGST during the treatment and follow-up period.
- Time to both suicide events and to NSSI will be longer in DBT vs. IGST.

2. Treatment Retention

- Days in treatment will be higher and treatment dropout will be lower in DBT vs. IGST.

3. Functional outcomes

- Decreases in family conflict will be greater in DBT vs. IGST.
- Several other functional outcomes will be measured (e.g., Axis I Disorders, social adjustment, global functioning, emotion regulation, impulsivity)

Secondary Hypotheses

Mediators of Primary Outcomes

- Decreases in family conflict will mediate reductions in both suicide events and NSSI.
- Increases in parent DBT behavioral skills will mediate reductions in family conflict.
- Reductions in emotion dysregulation will mediate reductions in both suicide events and NSSI.
- Increases in DBT behavioral skills will mediate reductions in emotion dysregulation.

Unique Aspects of Harbor-UCLA CARES Site

- 52% Hispanic/Latino
- Ability to study treatment effectiveness with underserved, ethnic minority subjects who would typically be treated in the community.
- Treatment delivered in Spanish.

Tips for Working with Parents of Youth at Risk for Suicide

- Reduce family conflict.
- Increase family support/validation.
- Increase parent safety monitoring.
- Convey seriousness of suicide attempts and NSSI and need for mental health treatment.
- Take every statement about suicide and wish to die seriously and avoid assuming that the child is simply seeking attention
- Decrease judgments about suicidal/self-harm behaviors, e.g., “my child is trying to manipulate me.”
- Suicidal behavior is often communication behavior. Listen very closely to what is on your child’s mind and what he/she may be trying to tell you. Validate their feelings. Suicidal behavior is a “cry for understanding.” You want to convey this understanding BEFORE your child hurts themselves.

DBT Parenting Pilot Study

- 8-10 session parenting intervention
- Pilot testing with N=10 parents of youth with a suicide attempt or NSSI in the past 3 months
- Funded by a Stanford University Department of Psychiatry Small Grant Award.
- Two primary goals:
 - Improve the parent/teen relationship and increase parental validation and use of a non-judgmental stance toward the teen.
 - Increase use of effective, behavioral parenting skills.
- Other benefits we have observed in pilot work include:
 - Providing the parent with a dedicated space to focus and reflect on parenting goals and strategies.
 - Providing parents with tools for self-care and emotion regulation.
 - Providing parent with validation of their parenting.

DBT Parenting Intervention Components

DBT Skills Taught	Improving the parent/teen relationship and decreasing judgment	Parenting Skills Building	Parent Self-Care
DBT Assumptions	X		
Biosocial Model	X		
3 States of Mind (Emotion Mind, Wise Mind, Reasonable Mind)		X	X
Mindfulness (What and How Skills)	X		X
Dialectical Thinking	X		X
Middle Path		X	
Validation	X	X	X (self-validation and validation of parenting by therapist)
Contingency Management		X	

Conclusions

- Effective treatments for adolescent suicide attempters are urgently needed.
- Research on suicidal individual poses many challenges for investigators – but these challenges can be successfully addressed.
- DBT may be an effective treatment for decreasing suicide attempts, as well as NSSI, in adolescents at high risk for suicide.
- If findings from the CARES Study are as predicted, DBT will be the first “well-established” treatment for decreasing self-harm behavior in teens.
- DBT can be successfully implemented in community settings.
- DBT offers benefits for parents as well as teens.