Effectiveness of a Children’s Adaptation of Dialectical Behavior Therapy in a Residential Treatment Setting: Preliminary Results

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Dialectical Behavior Therapy (DBT)

DBT for adults (Linehan, 1993)
- DBT is an evidence-based intervention for suicidality in adults
- Comprehensive DBT consists of:
  - Individual therapy
  - Skills training
  - Coaching calls
  - Consultation team for therapists

DBT for adolescents (Miller, Linehan, & Rathus, 2006)
- Adapted for suicidal adolescents 13 to 18 years of age
- Retained core elements of DBT and added family component
- Quasi-experimental study indicated significant pre-post reduction in suicidal ideations, fewer psychiatric hospitalizations, and higher rate of completion.
DBT: Background and Features

- Developed by Marsha Linehan, PhD
- Originally for chronically suicidal/self-harming patients
- Combines CBT with Zen mindfulness
- Supportive, active, directive
- Principle driven (function over typography)
- Skills-oriented
- Focused on emotions
- Has cognitive and behavioral components
- Central dialectic on acceptance and change
- Teamwork
The Central Dialectic of DBT

Reciprocal
Intervening
Validating
Mindfulness
Distress Tolerance

Irreverent
Consulting
Problem Solving
Emotion Regulation
Interpersonal Effectiveness

ACCEPTANCE

CHANGE

Dialectical
Why balance?

Focus on Change

AROUSAL
Sense of Out-of-control

HIGH Arousal
+ Out-of-control

No Learning – No Collaboration
Why balance?

Focus on Acceptance

Invalidation of Suffering

AROUSAL
Sense of Out-of-control

No Learning – No Collaboration
Solution was to Apply a Dialectical Approach

Balancing

ACCEPTANCE  CHANGE

Dialectical
Reasons for Ineffective Behaviors and Behavior Therapy Techniques

1. Skills Deficit
   → Skills Training

2. Emotional inhibition
   → Exposure

3. Environment rewards problem behaviors; punishes effective behaviors
   → Contingency Management

4. Problematic beliefs or expectations
   → Cognitive Restructuring
DBT-C: Adapting Individual Therapy
DBT for children: Individual Therapy

Individual DBT has been adapted to fit the developmental level of 6-12 year old children:

- DBT principles and theoretical framework were retained without modification
- Session format was modified:
  - Sessions 1-2: Orienting to treatment model, biosocial theory, discussion of goals and objectives
  - Sessions 3-7: Individual therapy focuses on teaching about emotions (e.g., what are emotions, why they are important, emotion wave)
  - Sessions 8-24: Individual therapy following Stage I targets
Standardized teaching about emotions during initial individual sessions:

– To prepare children for emotion focus in treatment (e.g., discussing emotions, eliciting emotional responses and formulating problems in terms of emotions)

– To complete Diary Cards (i.e., teaching about the difference between emotions, thoughts and behaviors)

– To conduct chain analysis (e.g., emotion wave)
What is a difference between an emotion, a thought and a behavior?

**Directions:** In the bold sentences: circle an emotion, put a straight line under the thought and put a wavy line under behavior.

Chris lost his book report. **He got frustrated, thought that he should be more organized and wrote the book report all over again.**
1. Event:
• Something happens that gets the feeling started

2. Thoughts:
• How we think about the event

3. Feelings:
• Emotional reactions
• Change in face and body

4. Action Urge:
Feelings makes us want do something

5. Action:
• With words
• With behaviors

6. After Effects:
• Memories
• Thoughts
• Body
• Behavior
• Other emotions
| **Stop** | Do not just react. Stop! Freeze! Do not move a muscle! Your emotions will try to make you act without thinking. Stay in control! |
| **Take a step back** | Take a step back from the situation. Get unstuck from what is going on. Let go. Take a deep breath. Do not let your feelings put you over the edge and make you act impulsively. |
| **Observe** | Take a notice of what is going on inside and outside of yourself. What is the situation? What are your thoughts and feelings? What are others saying or doing? |
| **Proceed mindfully** | Act with awareness. In deciding what to do, consider your thoughts and feelings, the situation, and the thoughts and feelings of other people. Think about your goals. What do you want to get from this situation? Which actions will make it better or worse? |
“Three-Headed Dragon”

game of chain analysis
Event: Boy called me names

Thought: He hates me

Feeling: Anger

Urge: Kick him

Action: Kicked

After Effect: Detention

Prob Solve: Tell teacher

After Effect: Proud

Emot Reg: Walk away

After Effect: Praised

STOP
## Four Responses to Any Problem

<table>
<thead>
<tr>
<th>Responses</th>
<th>Related DBT Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Solve the Problem</td>
<td>1. Interpersonal Effectiveness and/or Self-management</td>
</tr>
<tr>
<td>2. Change the emotional</td>
<td>2. Emotion Regulation</td>
</tr>
<tr>
<td>reaction to the problem</td>
<td></td>
</tr>
<tr>
<td>3. Tolerate and/or accept the</td>
<td>3. Distress Tolerance (Crisis Survival and Reality Acceptance)</td>
</tr>
<tr>
<td>problem and the emotional</td>
<td></td>
</tr>
<tr>
<td>reactions to the problem</td>
<td></td>
</tr>
<tr>
<td>4. Stay Miserable</td>
<td>4. None Necessary</td>
</tr>
</tbody>
</table>
Mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally.

-Jon Kabot-Zinn
Mindfulness: Three States of Mind

States of Mind

Reasonable Mind

Wise Mind

Emotional Mind
Mindfulness: Activating Wise Mind

What Skills
- Observe: just notice
- Describe: put into words
- Participate: enter into the experience

How Skills
- Non-judgmental stance: “just the facts”
- One-Mindfully: in-the-moment
- Effectiveness: focus on what works
Distress Tolerance

Skills taught in DT module are to survive/tolerate/get through difficult situations without making things worse

Willingness and Willfulness

- Being willing to accept reality as it is as opposed to being willful in refusing to tolerate distress.

Distract

- Controlling emotional and behavioral responses to just get through the situation without making it worse
- e.g., watch a movie, help someone else, hold ice
Distress Tolerance

**Self-Soothe**
- Tolerating distress by using five senses
- e.g., put on scented lotion, eat comfort food

**Letting It Go**
- Accepting things as they are

**Pros and Cons**
The positive and negative consequences of engaging and not engaging in a behavior
Emotion Regulation

Skills taught in ER module are to reduce emotional vulnerability by reducing emotional sensitivity, increasing positive emotions, being mindful of painful emotions, instead of fighting them and acting opposite to emotion action urges.

Surfing You Emotions
- Regulating emotional arousal by just attending to an emotion without trying to change its intensity.

Opposite Action
- Changing affective reaction by acting opposite to the emotion.

PLEASE skills
- Reducing emotional vulnerability with PLEASE skills: Attend to Physical health, Eat healthy, Avoid drugs/alcohol, Sleep well, and Exercise

LAUGH skills
- Increasing positive emotions with LAUGH skills: Let go of worries, Apply yourself, Use coping skills, set Goals, and Have fun.
Skills taught in IE module are to maximize chances of person getting what she wants, while maintaining or enhancing relationships.

**Worry Thoughts and Cheerleading**

- What gets in the way of being effective and cheerleading statements.

**Two kinds of IE Goals**

- Two kinds of interpersonal goals, “getting what you want” and “getting along.”

**DEAR skill**

- How to “get what you want” using DEAR skills: Describe the situation, Express feelings and thoughts, Ask for what you want, Reward or motivate the person.

**FRIEND skill**

- How to “get along” by using the FRIEND skill: be Fair, Respect the other person, act Interested, Easy manner, Negotiate and be Direct.
“Mindfulness” means paying attention to what is going on in a particular way:

On purpose: I choose to pay attention
In the moment: I am paying attention to right now
Non judging: I am not thinking about it as “good” or “bad”

Why is it important?

Mindfulness helps us be wise

How?

By balancing

Emotions

Facts
MINDFULNESS
Taking hold of your mind
Handout 3

States of Mind

Emotion Mind

Wise Mind

Reasonable Mind
EMOTION REGULATION
Surfing Your Emotion
Handout 7

1. Notice that you have a strong emotion.
2. Notice that you have an action urge.
3. Remember, you don’t have to do what your feeling wants you to do.
   You are not your feeling.

4. Let go of all thoughts. Do not make this urge bigger. Do not try to push it away.
5. Bring your mind to the way you feel. Find this feeling in your body. Attend to the sensations (e.g., burning, tightening).
6. Notice the feeling coming and going like a wave.
7. Notice the feeling getting weaker and weaker.
8. Notice your urge going away.
Remember!
You can change your emotion by acting opposite to how you feel!

<table>
<thead>
<tr>
<th>Emotion</th>
<th>Action Urge</th>
<th>Opposite Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear</td>
<td>Run away, hide, avoid</td>
<td>Face what you fear</td>
</tr>
<tr>
<td>Anger</td>
<td>Fight, attack, be mean, call names</td>
<td>Avoid or be gentle, nice, kind, understanding</td>
</tr>
<tr>
<td>Sadness</td>
<td>Shut down, hang your head low, crawl in bed</td>
<td>Get active, exercise, talk to family, play with friends</td>
</tr>
<tr>
<td>Shame/Guilt</td>
<td>Hide, avoid</td>
<td>Be open about what happened. Apologize and make repairs if you were wrong</td>
</tr>
</tbody>
</table>
Caregiver training

Caregivers are trained in DBT for children skills and behavior modification and validation techniques

1. Introduction to Dialectics
2. Dialectical Dilemmas
3. Creating a validating environment
4. Creating a change-ready environment
   Hierarchy of child's negative behaviors to be modified in therapy, and realistic expectations for change)
5. Introduction to behavior modification techniques
6. Reinforcement
7. Punishment
Validation means accepting feelings, thoughts and actions as justifiable, meaningful or well-grounded. Validation indicates that the other person is taken seriously.

Types of validation:
1. Yes, this makes sense!
Finding the kernel of truth in what child feels, thinks and does.

2. Yes, you can do it!
Believe in your child's abilities and cheerlead along the way. Assume that your child is doing his/her best AND can do better. Encourage hope, focus on child's strengths, praise and reassure. Tell your child examples of your own struggles and how you overcame problems.

How to validate:
1. Non-verbal validation
Listen to what your child has to say, make eye contact, nod, give a tissue or a hug. Be mindful of invalidating non-verbal reactions, such as rolling eyes, sucking teeth, and walking away.

2. Verbal validation
Replace "this is good" and "this is bad" with stating facts. Identify what is effective or ineffective in short- and long-term. Reflect what your child is saying without judging. State that your child's feelings, thoughts or actions make sense in this situation even if you do not approve.

Practice Self-Validation
Changing negative behaviors

1. Stop reinforcing an unwanted behavior. Negative behaviors can be reinforced by just paying attention to what your child is doing. Deliberately ignore a behavior you do not want and attend to a behavior you want.

2. Reinforce positive opposites of a negative behavior. A positive opposite is a behavior you want your child to do instead of a negative behavior. Define a behavior you want, and be specific and clear. Telling your child "do not do this..." only tells your child what NOT to do but does not say what to do instead.

Developing new behaviors

When your child does not do a certain behavior that you want, you never get a chance to reinforce it. That is when shaping comes in handy. Shaping is a technique where you teach a new behavior by reinforcing small steps toward this behavior:

1. Break down the desired behavior into smaller parts.
2. Reinforce one part of the behavior until it happens consistently.
3. Increase requirement for a reinforcer to two behaviors.
4. Continue to slowly increase the requirements for the child to receive a reinforcer.
5. Keep on reinforcing goal behavior every time it occurs.

Point chart

1. Choose two or three behaviors that are most difficult for you child.
2. Define these behaviors clearly and specifically.
3. Assign a number of points that your child will receive for each behavior, with harder behaviors getting more points.
4. Sit down with your child and discuss rewards your child wants to earn. Make sure that you have rewards that can be earned in one day, as well as rewards that can be earned in several days to a week.
5. Assign “prices” in terms of the number of points for each reward.
Adapting DBT-C for children with severe emotional and behavioral dysregulation:
Pilot RCT with children in residential care
Pilot RCT (60 cases in DBT-C and 60 cases in TAU) to examine feasibility and efficacy.

1. Examine feasibility of DBT-C by evaluating number of sessions attended, and treatment satisfaction and any differences in these rates by groups.

2. Examine efficacy of DBT-C in reducing internalizing and externalizing symptoms (on Child Behavior Checklist).

3. Examine efficacy of DBT-C in improving coping skills, emotion regulation and social skills.

4. Examine efficacy of DBT-C in reducing the frequency of critical incidents (e.g., suicidal ideations and attempts, self-harm behaviors, psychiatric hospitalization, emergency room visits, number of days inpatient, sexual acting out, running away, stealing, restraints, police involvement), psychopharm interventions.
II. Psychometric properties of treatment integrity measures.

III. Finalizing treatment manuals and educational materials for future research.
DBT for children

- **Individual**
  - 24 sessions
  - Once per week
  - 45 min individual sessions

- **Skills training**
  - Twice per week (didactics and home-work review)
  - Group sessions
  - 60 min.

- **Caregiver training**
  - Twice per month (via teleconferencing)
  - 90-min sessions

- **Milieu therapy**
  - prompting the use of skills in everyday life and reinforcement of adaptive coping
Interventions

Treatment-As-Usual

- Individual therapy
  - psychoeducation, crisis management, and non-directive supportive therapy)
- Group Therapy
  - psychoeducation, process therapy and social skills training).
- Caregiver training in parenting skills.

Clinical site

Residential care facility that serves 85 children annually, from 6-13 years of age with severe emotional and behavioral difficulties
Inclusion/Exclusion Criteria

**Inclusion criteria:**
1. Age 6 to 13 years
2. Male
3. In residential treatment at Green Chimneys
4. Projected length of stay is at least 8 months.

**Exclusion criteria:**
1. Pervasive developmental disorder
2. Psychotic disorder
3. Mental retardation
4. Caregivers do not speak English
5. In care or custody of the Department of Social Services.
**Specific Aim 1:**
Examine feasibility of DBT-C by evaluating response rate in treatment attendance, treatment satisfaction, and any differences in these rates by groups.

**Hypothesis 1:**
DBT-C and TAU will have equivalent attendance rate. DBT-C as compared with TAU will have significantly higher treatment satisfaction rating by subjects (on the child and caregiver Therapy Satisfaction Questionnaires), as well as by therapists (Therapist Satisfaction Scale) and milieu staff (Milieu Staff Satisfaction Questionnaire).
Specific Aim 2:
Examine efficacy of DBT-C as compared to TAU in reducing internalizing and externalizing symptoms.

Hypothesis 2:
Children in DBT-C condition as compared to TAU will have significantly fewer internalizing and externalizing symptoms (on the Child Behavior Checklist total and subscale scores).
Specific Aim 3:
Examine efficacy of DBT-C in improving adaptive coping, emotion regulation, risk taking, and social skills, and reducing depression.

Hypothesis 3:
Children in DBT-C Training condition as compared to TAU will have significantly greater improvement in adaptive coping skills (on the Children’s Coping Strategies Checklist), emotion regulation (on the Emotion Regulation Checklist), risk taking and impulsivity (on the Balloon Analog Risk Task) and social skills (on the Social Skills Rating Scale), and reducing depressive symptoms (on Mood and Feelings Questionnaire and Pleasure scale for Children).
Specific Aim 4:
Examine efficacy of DBT-C in reducing the frequency of critical incidents.

Hypothesis 4:
Children in DBT-C condition as compared to TAU will have significantly fewer critical incidents, including psychiatric hospitalization, emergency room visits, total number of days inpatient, suicidal ideations and attempts, self-harm behaviors, sexual acting out, running away, stealing, police involvement, etc. (on the Incident Report).
## DEPENDENT MEASURES

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Construct</th>
<th>Reporter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Behavior Checklist (CBCL)</td>
<td>Internalizing/Externalizing</td>
<td>Parent, Teacher, Milieu Staff</td>
</tr>
<tr>
<td></td>
<td>symptoms</td>
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<tr>
<td>Emotion Regulation Checklist (ERC)</td>
<td>Emotional Self Regulation</td>
<td>Parent, Milieu Staff</td>
</tr>
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<td>Reporter</td>
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<tr>
<td>Social Skills Ratings Scale (SSRS)</td>
<td>Social difficulties</td>
<td>Teacher</td>
</tr>
<tr>
<td>Patient Compliance (PTCS)</td>
<td>Participation and Attendance in Therapy</td>
<td>Therapists</td>
</tr>
<tr>
<td>Incident Report (IR)</td>
<td>Critical Incidents (i.e. AWOL, Hospitalizations, Self Harm)</td>
<td>All Staff</td>
</tr>
</tbody>
</table>
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<th>Instrument</th>
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<tbody>
<tr>
<td>Mood and Feelings Questionnaire (MFQ)</td>
<td>Depression/Suicidal Thoughts</td>
<td>Child</td>
</tr>
<tr>
<td>Balloon Analog Risk Task (BART)</td>
<td>Risk Taking/Impulsivity</td>
<td>Child</td>
</tr>
<tr>
<td>Children’s Coping Strategies Checklist (CCSC)</td>
<td>Coping Skills</td>
<td>Child</td>
</tr>
<tr>
<td>Pleasure Scale for Children (PSC)</td>
<td>Anhedonia</td>
<td>Child</td>
</tr>
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<td>Instrument</td>
<td>Construct</td>
<td>Reporter</td>
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<tr>
<td>TSS</td>
<td>Therapist Satisfaction</td>
<td>Therapist</td>
</tr>
<tr>
<td>MSSQ</td>
<td>Milieu Satisfaction</td>
<td>Milieu Staff</td>
</tr>
<tr>
<td>TSQ</td>
<td>Treatment Satisfaction</td>
<td>Child, Parent</td>
</tr>
</tbody>
</table>
Obstacles to Research

“It’s time we face reality, my friends. ... We’re not exactly rocket scientists.”
Obstacles to Research

- $$$$$$
- Confidentiality
- Training
- Randomization
- Video Taping
- Changing Existing Therapy
- Buy in From Children, Families, Administration, Staff
OUTCOMES

THERAPY:
• Does DBT-C produce positive outcomes?

FEASIBILITY:
• Attendance & Acceptance
• Do children/parents/therapists like this type of therapy?
"Discouraging data on the antidepressant."
Why did we get involved?

1. The Board made us do it
2. Our Executive Director made us do it
3. We had an extra money to throw around
4. All our therapists are Borderline
Why did we get involved?

Perfect Storm

- We had some additional $ from our Hard to Place Rate
- We were building new dormitories to complete a campus wide renovation
- Our Executive Director saw the value of clinical research and offering state of the art treatments
- Our Board was encouraging of collaboration with a major university
- Desire to improve the quality of care to children exhibiting impulsive, aggressive and self-destructive behaviors
Where to now?

- Analyze the data
- Decide on feasibility of DBT-C
- Train all staff in this method if effective
- Have library of training tapes and material to assure continuity of training