Cognitive Behavior Therapy
Interventions in MS

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Cognitive Behavior Therapy

• Psychotherapy that identifies patterns of thinking and behavior that change with depression
• Cognitive therapy helps people actively change these patterns of thinking and behavior
• When thinking and behavior are successfully changed, the mood disorder lessens or remits

(Early) Experience ➔ Schemas/Core Beliefs (Unconditional)

Rules/Intermediate Beliefs (Conditional)

Assumptions/Expectations/ Compensatory Strategies

Current Trigger/Situation ➔ Automatic Thoughts

Emotions ➔ Behaviors ➔ Somatic Reactions
How thinking changes in depression

- Negative views of oneself, other people, the future, and the world
- Negative perceptions and beliefs are distorted (i.e., exaggerated and/or blatantly inaccurate)
- Underlying distorted beliefs are frequently activated by social contact (thus social withdrawal is a common symptom)

Examples of distorted thinking in persons with MS who are depressed

- “I can’t play catch with my son” [therefore I am a failure as a father]
- “I can’t work a full-day anymore” [therefore I am worthless as a husband/wife…]
- “I can’t take care of my children by myself anymore…I need help” [therefore I am a terrible mother]
Types of Cognitive Biases Associated with Depression and Anxiety

- **Catastrophizing**: Blowing things out of proportion “I am having an exacerbation…I will go completely downhill now…my life is over.”
- **Overgeneralizing**: Generalizing about oneself or others based on one event or mistake..”I forgot her name…I have no social skills/grace”

Cognitive Biases

- **Overgeneralization, cont’d**: Perfectionism: People only have value if things are done the “right” way (and perfectionists know what the one “right” way is!)
Cognitive Biases

- **Personalization:** Taking things personally...examples include:
  - “I am worthwhile only if I have others acceptance and approval.”
- Beliefs that life should be fair...and if it’s not, I am being persecuted/or it is a terrible thing.


Objectives:
- Test Efficacy of Cognitive-Behavior Therapy on Anxiety, Depression, and Coping in Randomized Single-Blind Controlled Study
- Treatment Group: Received CBT + Relaxation Training w/ written instructions + diaries for daily practice
- Usual Care Control Group: Received usual clinic care (11% antidepressant therapy; 16% individual psychotherapy; 11% family counseling; 100% 2 hours supportive counseling during wait period)
- No differences in EDSS, demographics, or disease activity bet groups
### Interaction Results, Depression

<table>
<thead>
<tr>
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<th>T1</th>
<th>T2</th>
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<th>α</th>
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<td>13.2 (10.5)</td>
<td>5.0</td>
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<tr>
<td></td>
<td>CTRL 21.7 (15.0)</td>
<td>21.6 (14.2)</td>
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Note: BDI=Beck Depression Inventory, TX. = Cog-Beh Therapy Grp, CTRL= Usual Care Control

### Interaction Results, State Anxiety

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Note: STAI=State-Trait Anxiety, TX. = Cog-Beh Therapy Grp, CTRL= Usual Care Control
# Interaction Results: Trait Anxiety

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<td>3.2</td>
<td>ns (trend)</td>
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<tr>
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Note: STAI=State-Trait Anxiety, TX. = Cog-Beh Therapy Grp, CTRL= Usual Care Control

# Interaction Results, Problem-Focused Coping

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<td>&lt;.001</td>
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<tr>
<td>CTRL</td>
<td>12.2 (5.7)</td>
<td>11.8 (4.6)</td>
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</table>

Note: PFC=Ways of Coping Checklist, Problem-Focused Scale, TX. = Cog-Beh Therapy Grp, CTRL= Usual Care Control
Rehabilitation of Sexual Dysfunction in Multiple Sclerosis

Frederick W. Foley, Ph.D., Nicholas LaRocca, Ph.D.,
Audrey Sorgen, Ph.D., Vance Zemon, Ph.D.

Objectives:
Test Efficacy of Structured Cognitive-Behavior Therapy Intervention To Rehabilitate Sexual Dysfunction, Marital Satisfaction & Marital Communication in PWMS & Their Sexual Partners
Results, Sexual Satisfaction

<table>
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<tr>
<td>S</td>
<td>14.4</td>
<td>14.9</td>
<td>16.6</td>
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Note: SS=Mean Sexual Satisfaction Subtest Scores of the Marital Satisfaction Inventory, Pt=Person w/ MS, S=Spouse/Partner. SS Scores were reversed to indicate satisfaction. Higher scores=higher satisfaction.

Results, Marital Satisfaction

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</tr>
<tr>
<td>S</td>
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<td>42.4</td>
<td>52.8</td>
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Note: MAT=Marital Adjustment Test, Pt=Person w/ MS, S=Spouse/Partner
### Results, Affective Communication

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<tr>
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<td>16.3</td>
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<td>&lt;.001</td>
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<tr>
<td>Pt</td>
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<td>11.2</td>
<td>16.6</td>
<td>[no interaction]</td>
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</tr>
<tr>
<td>S</td>
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<td>13.3</td>
<td>16.2</td>
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Note: AC=Affective Communication Subtest of the Marital Satisfaction Inventory, Pt=Person w/ MS, S=Spouse/Partner

### Results, Problem-Solving Communication

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<td>S</td>
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<td>18.6</td>
<td>23.8</td>
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Note: PSC=Problem-Solving Communication Subtest of the Marital Satisfaction Inventory, Pt=Person w/ MS, S=Spouse/Partner
Applications of CBT to MS Persons w/ Cognitive Disorders to Improve Marital Communication


- Developed templates for patients and partners to communicate
- Taught listening skills
- Taught how to empathize with partner via templates
- Taught how to make positive requests & resulting consequences if request granted
- Taught how to provide feedback to others when their behavior is not acceptable, and make positive (non-critical) requests for behavior change

- LIMITATIONS: ONLY TESTED WITH A SERIES OF CASE STUDIES: NO RTC

Comparing Psychotherapies and Anti-Depressant Tx

[Mohr et al (2002)]: 63 patients with MS and MDD randomly assigned to 16 weeks of:

- **Individual Cognitive Behavioral Therapy** (CBT)
  - 50 min. weekly sessions (5% dropout)
- **Supportive-Expressive Group Therapy** (SEG; Spiegel & Classen, 2000)
  - 90 min. weekly groups (18% dropout)
- **Sertraline**
  - Mean end dose 88.75 mg (M = 139 mg for completers; 29% dropout)
ITT Analysis: BDI as Outcome

Effect for Time: $p < .000001$; Time X Tx: $p = .019$

[Slide courtesy of David Mohr, PhD]
Telephone Treatment for Depression Study  [Mohr et al, 2000: Slide Courtesy of David Mohr]

**Effect for time p=.003**
**Time X Treatment, p=.01**

![Graph showing effect of treatment over time](image)

- **POMS Dep-Dej**
- **Effect for time p=.003**
- **Time X Treatment, p=.01**

**Graph Legend**
- CMS (p=.001)
- UCC (p=.72)

### Emotions - Behaviors - Somatic Reactions

- **(Early) Experience**
- **Schemas/Core Beliefs (Unconditional)**
  - **Rules/Intermediate Beliefs (Conditional)**
  - **Assumptions/Expectations/ Compensatory Strategies**
  - **Current Trigger/Situation**
- **Automatic Thoughts**
- **Emotions**
- **Behaviors**
- **Somatic Reactions**
CBT Case Conceptualization

- Getting a list of problems, issues and goals
- Diagnosis
- Key core beliefs (global statements about self, world and future)
- Key dysfunctional assumptions (life rules, shoulds, musts)
- Vicious cycles and maintaining factors (things that keep the problem going, safety behaviors, compensatory strategies)
- Triggers (things that set the problem off now)
- Modifiers (things that make it better or worse)
- Vulnerability factors (childhood experiences, genetic factors)
- Critical Incidents (what started the big problem recently)
- Alternative core beliefs, assumptions and policies
- Typical cycle of event, thought, mood, physiology and behavior
- All of the above used to formulate treatment plan

“Gloria”

- Underlying negative self-image
- Compensatory beliefs that she can be “OK” as a person as long as she can control her life
- If she “does all the right things” then she can control her MS
- Underlying beliefs about ‘fairness’ help regulate her self-esteem
CBT Case Conceptualization

• **Key core beliefs:**
  – I am helpless; I am worthless; life is fair; people will not take care of me

• **Intermediate beliefs (Conditional coping beliefs):**
  – If I do all the right things in life, I can be OK as a person and good things will happen to me
  – If I take good care of myself, I can control my health
  – If my doctors are competent, my MS will not progress

• **Key dysfunctional assumptions:**
  – I can control my MS by doing the right things; if I get a relapse it is my fault; if I get a relapse my doctors have done something wrong; if I do all the right things and get a relapse, life is not fair

Structure Communication to Compensate for Cognitive Problems

2. **Feedback Statement.** (If feedback will be Given, Describe the Undesirable Behavior of the Other Person from Thinking Step 7).

   When you *(describe behavior _____)*

   Next, describe the consequences of this behavior for your situation (your thoughts, feelings, or behaviors in response to this behavior from Thinking Step 7).

   I *(think, feel, act _____________________)*