CBT for ADHD in Adults

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Disclosures

I have the following relevant financial relationship with a commercial interest to disclose:

Oxford University Press – Book Royalties for the therapist guide and client workbook “Mastering your adult ADHD”

Springer—Royalties for co-editing “The MGH Handbook of Cognitive Behavioral Therapy”
Why CBT if ADHD is a neurobiological disorder?

- Although medications help, they do not teach compensatory skills that potentially an adult with ADHD never learned in childhood
- Medications help turn the volume down on symptoms
  - But a “responder” in medication trials = 30% reduction in symptoms
  - 20-50% of adult patients are “non-responders” in first line medication trials

References for psychopharmacology studies: Wender, 1998; Wilens et al., 1998, 2002
Cognitive-Behavioral Model of Adult ADHD

History of:
- Failure
- Underachievement
- Relationship problems

Dysfunctional Cognitions and Beliefs

Core (Neuropsychiatric) Impairments in:
- Attention
- Inhibition
- Self-Regulation (impulsivity)

Mood Disturbance
- Depression
- Guilt
- Anxiety
- Anger

Failure to Utilize Compensatory Strategies
- Organizing
- Planning (eg, task list)
- Managing procrastination, avoidance,
- Distractibility

Functional Impairment

Safren et al., 2004
Study Results

• Study 1 (2005): Pilot RCT (N=31) comparing CBT to Continued Psychopharmacology alone

• Study 2 (2010): Full scale efficacy trial (N=86) comparing CBT to Relaxation With Educational Support Published in JAMA
Pilot Study (Safren et al., 2005)

• 31 participants
• Randomly assigned to CBT + continued psychopharm or continued psychopharm
• 12 week manualized individual CBT
• Lower IE-rated ADHD Symptom Severity and CGI scores in CBT group
• More responders in CBT group than continued psychopharm
Efficacy Trial (Safren et al., 2010)

- 86 Participants
- Randomly assigned to CBT or Relaxation with Educational Support (RES)
- All participants on stable medication
- 12 week manualized CBT or RES
- Lower IE rated ADHD Symptom Severity and CGI in CBT group
- More responders in CBT group
- Results maintained at follow-up
Metacognitive Therapy for ADHD (Solanto et al, 2012, American Journal Of Psychiatry)

- 12-week Manualized group therapy for time management, organizing, and planning
- N=86, stratified by medication use
- Compared to supportive psychotherapy groups
- Significantly greater improvement on self report, IE ratings of symptoms, and collateral report in MCT group
- Greater proportion of responders in MCT group than supportive psychotherapy
<table>
<thead>
<tr>
<th></th>
<th>Treatment</th>
<th>Format</th>
<th>n</th>
<th>Sessions</th>
<th>Measure</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Rostain 2006)</td>
<td>CBT and Medication for Adults with ADHD</td>
<td>Individual</td>
<td>64</td>
<td>16</td>
<td>BADDDS</td>
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<td></td>
<td>CGI-A</td>
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<tr>
<td>(Philipsen 2007)</td>
<td>Structured Group Psychotherapy</td>
<td>Group</td>
<td>72</td>
<td>13</td>
<td>ADHD Checklist</td>
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<td>(Virta 2008)</td>
<td>Cognitive Behaviorally Oriented Group Rehabilitation</td>
<td>Group</td>
<td>29</td>
<td>10-11</td>
<td>BADDDS total</td>
<td>0.22</td>
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<td>SCL-16</td>
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<td>(Solanto 2008)</td>
<td>Meta Cognitive Therapy</td>
<td>Group</td>
<td>30</td>
<td>8 or 12</td>
<td>CAARS-S:L Inattentive</td>
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<tr>
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<td>CAARS-S:L Hyperactive</td>
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<td>BADDDS</td>
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<td>ON-TOP</td>
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<td>CBT for Adult ADHD</td>
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<td>CGI-A</td>
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## Open Trials

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<th>n</th>
<th>Sessions</th>
<th>Measure</th>
<th>Effect Size</th>
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<tbody>
<tr>
<td>(Antshel et al. 2012) CBT for Adolescents with ADHD</td>
<td>Individual</td>
<td>68</td>
<td>13-16</td>
<td>BASC-2 Parent Externalizing</td>
<td>0.85</td>
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<td>BASC-2 Parent Internalizing</td>
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<td>BASC-2 Teacher Externalizing</td>
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<td>BASC-2 Teacher Internalizing</td>
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<td>ADHD-RS Parent Hyperactivity</td>
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<td>ADHD-RS Parent Inattention</td>
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<td>ADHD-RS Teacher Hyperactivity</td>
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<td>ADHD-RS Teacher Inattention</td>
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## Randomized Trials

<table>
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<tr>
<th>Treatment</th>
<th>Format</th>
<th>n</th>
<th>Sessions</th>
<th>Measure</th>
<th>Effect Size</th>
<th>No treatment control/Active Control</th>
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<tr>
<td>(Wiggins 1999) Psychoeducation for Adults with ADHD</td>
<td>Group</td>
<td>17</td>
<td>4</td>
<td>Disorganization Inattention</td>
<td>1.64</td>
<td>no treatment control</td>
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<td>(Stevenson 2002) Cognitive Remediation for Adults with ADHD</td>
<td>Group</td>
<td>43</td>
<td>8</td>
<td>DSM IIIR ADHD Checklist Adult Organization Scale</td>
<td>1.4</td>
<td>no treatment control</td>
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<tr>
<td>(Hesslinger 2002) Structured Skills Training Program for Adults with ADHD</td>
<td>Group</td>
<td>15</td>
<td>13</td>
<td>DSM IV ADHD Checklist</td>
<td>2.22</td>
<td>no treatment control</td>
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<td>(Stevenson 2003) Self Directed Psychosocial Intervention with Minimal Therapist Contact for Adults with ADHD</td>
<td>Group</td>
<td>35</td>
<td>3</td>
<td>10 item ADHD DSM IV-based Rating Scale</td>
<td>1.4</td>
<td>no treatment control</td>
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<th>Treatment</th>
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<th>n</th>
<th>Sessions</th>
<th>Measure</th>
<th>Effect Size</th>
<th>No treatment control/Active Control</th>
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</thead>
<tbody>
<tr>
<td>Safren 2005</td>
<td>Individual</td>
<td>31</td>
<td>10-15</td>
<td>ADHD Rating Scale, CGI</td>
<td>1.2</td>
<td>no treatment control</td>
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<tr>
<td>Virta 2010</td>
<td>Individual</td>
<td>29</td>
<td>10</td>
<td>BADDS, ASRS</td>
<td>0.26, 0.09</td>
<td>active and no treatment control</td>
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<tr>
<td>Safren 2010</td>
<td>Individual</td>
<td>86</td>
<td>12</td>
<td>ADHD Rating Scale, CGI</td>
<td>0.60, 0.53</td>
<td>active control</td>
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<tr>
<td>Hirvikoski 2011</td>
<td>Group</td>
<td>51</td>
<td>14</td>
<td>ADHD Current Symptoms Scale: SR</td>
<td>0.57</td>
<td>active control</td>
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<td>Emilsson 2011</td>
<td>Group and Individual</td>
<td>54</td>
<td>15</td>
<td>Barkley ADHD CSS, KSADS ADHD</td>
<td>0.76, 1.03</td>
<td>no treatment control</td>
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</tbody>
</table>
## Randomized Trials

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<tr>
<th>Treatment</th>
<th>Format</th>
<th>n</th>
<th>Sessions</th>
<th>Measure</th>
<th>Effect Size</th>
<th>No treatment control/Active Control</th>
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<tbody>
<tr>
<td>(Pettersson et al. 2014) iCBT for Adults with ADHD</td>
<td>iCBT</td>
<td>45</td>
<td>10</td>
<td>CSS</td>
<td>1.07</td>
<td>no treatment control</td>
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</tbody>
</table>
MGH Treatment Program

1st Editions, published in 2005:

2nd Editions, to be published Spring, 2017:
Treatment Modules

1. Organizing and planning
2. Coping with distractibility
3. Cognitive restructuring

*optional*
4. Application to procrastination
5. Involvement of significant other
MODULE 1: ORGANIZING AND PLANNING
Module 1: Orientation To The Treatment

• Each session has an agenda – like taking a course
• Review of previous modules and symptoms every session
• New skill almost every session
• Not all skills can be learned at once – makes it harder
• Practice makes perfect – need to practice long enough for it to be habitual
• Adherence to treatment – **plan for attention and distractibility during sessions**
Module 1: Begin Calendar and Task List System

- Calendar – develop and agree on a system (no such thing as the best system, but need a workable one)
- Task list – notebook, app on phone
- Consolidate EVERYTHING into calendar and task list/notebook – no loose papers, appointment slips, etc.
- Use this system long enough to become a habit
Managing Multiple Tasks

• Organization of multiple tasks (A,B,C)
• Managing overwhelming tasks: breaking large tasks into multiple do-able steps
  – 1. Choose a complex task from to-do list.
  – 2. List the steps you must complete.
  – 3. Make sure each step is manageable. (e.g., If task is “buy house” it will never get completed. If it is “look up realtors in town” it is much more likely to get completed)
  – 4. List every individual step on your daily to-do list.
Prioritizing Tasks

- **“A” Tasks:** most important
- **“B” Tasks:** less important, long-term
- **“C” Tasks:** lowest importance
  - May be easiest to complete & therefore most attractive to client
- Careful not to rate all as A’s
- Complete “A” items first before moving on to “B” items, and so on
Module 1: Five Steps in Problem-Solving

- 1. Articulate the problem.
- 2. List all possible solutions.
- 3. List pros and cons of each solution.
- 4. Rate each solution.
- 5. Implement the best option.
## Problem Solving Form: Selection of Action Plan

<table>
<thead>
<tr>
<th>Possible Solution</th>
<th>Pros of Solution</th>
<th>Cons of Solution</th>
<th>Overall Rating of Solution (1-10)</th>
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</thead>
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<tr>
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</table>
Module 2: Coping with Distractibility

- Decide on a reasonable length of time that patient can expect him or herself to focus on a difficult or unpleasant task

- Distractibility delay (Apply “chunks” from problem solving that coincide with the length of one’s attention span for difficult or boring tasks and set your timer)

- If distractions occur during this time, write them down and go back to task at hand

- Check in with distractions when timer goes off
Module 2: Coping with Distractibility

• Modifying the environment:
  – Look for distractions in environment and eliminate or reduce them in advance to “set the stage” for success
Using Reminders & Alarm Device

- Set alarm on phone or computers to go off at regularly scheduled intervals (every half hour)
- “Am I doing what I am supposed to be doing or did I get distracted?”
Keeping Track of Important Objects

• Ask client to think of difficulties keep track of important objects (keys, wallet, notebook, phone)
• Find specific place in house where these objects will be kept
  – Stress the importance of placing item in its appropriate place immediately
• Involve other family members
# Cognitive Restructuring

<table>
<thead>
<tr>
<th>Time and Situation</th>
<th>Automatic Thoughts</th>
<th>Mood and Intensity</th>
<th>Thinking Error</th>
<th>Rational Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing a report for</td>
<td>I have to do all of this today</td>
<td>Overwhelmed (80)</td>
<td>All or nothing thinking</td>
<td>I can probably get through this if I break it down into steps, and take breaks.</td>
</tr>
<tr>
<td>work</td>
<td>I must do this perfectly.</td>
<td>Anxious (75)</td>
<td>Jumping to conclusions (mind reading)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If I do not finish my boss will be upset.</td>
<td>Depressed (60)</td>
<td>Jumping to conclusions (fortune telling),</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If the project is not perfect and my boss is upset, I will lose my job</td>
<td></td>
<td>Catastrophizing</td>
<td></td>
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<tr>
<td></td>
<td>I am worthless</td>
<td></td>
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Overly Positive Thinking Can Have Negative Consequences...

- "Red Flag" Thoughts:
  - "I don’t need to worry about this."
  - "It will all work out because I’m a good person."
  - "I can get one more thing done before I leave."
  - "I HAVE to do this interesting thing RIGHT NOW."

- Can precipitate:
  - Avoidance of skill use
  - Failure to consider realistic consequences
  - Impulsive responding
  - Negative reinforcement of overly positive thinking via immediate distress reduction
Managing Procrastination

• Using skills learned earlier in treatment and applying them to topic of procrastination

• Identifying triggers for procrastination
  – Is the task too large?—break it down into smaller chunks
  – Are you unsure where to start?—use problem-solving worksheet
  – Unhelpful cognitions?—use thought record to identify and challenge negative thoughts

• Use MI approach (short/long term pros & cons)
• Develop plan for coping with procrastination
Optional Module:
Session with Significant Other

• Discuss family member role (reminders, “coaching” but not nagging)

• Overview of the treatment

• Making a plan as to how family member can support the patient in their treatment
Application to Adolescents

• We adapted our treatment program for use with adolescents aged 14-18
• Greater involvement of parents
• Increased emphasis on use of technology
• Decreased emphasis on traditional cognitive therapy
• Use of examples relevant to adolescents (school, homework, interpersonal issues)
A randomized controlled trial of cognitive behavioral therapy for ADHD in medication treated adolescents (Sprich, et al., 2016, Journal of Child Psychology and Psychiatry)

- 46 adolescents with ADHD on medication for ADHD
- Randomly assigned to CBT or wait list in a crossover design
- 12 sessions (2 with parents) plus 2 optional parent-only sessions
- Participants who received CBT had significantly lower scores on ADHD rating scale by IE-rated parent and adolescent report
- Significantly greater proportion of responders in CBT than wait list by parent and adolescent report
- Results demonstrate initial efficacy for CBT for medication-treated adolescents with ADHD
Results of Adolescent Study: Responder Status (≥30% decrease on ADHD Rating Scale)

- Parent Report:
  - Treated: 50
  - Waitlist: 18

- Self Report:
  - Treated: 58
  - Waitlist: 18
Conclusions

• CBT has documented efficacy for adult ADHD
• Preliminary results are promising for adolescent ADHD
• More work is needed in adolescent populations using larger sample sizes, with individuals who are not on medications and comparing CBT to attention matched control groups
Selected References and Relevant Clinical Materials

  - CONTAINS VIDEO CLIPS