An Overview of The New Brown Executive Function/Attention Scales (Brown EF/A Scales)

Welcome Everybody!

Presenter and Author

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Change in Understanding ADHD
Attention Deficit Hyperactivity Disorder

Old Understanding Of ADHD:
“disruptive behavior disorder of childhood”

New Understanding Of ADHD:
Developmental impairments of brain’s self-management system, its “executive functions”

Executive Functions

• Wide range of central control processes of the brain
• Connect, prioritize, and integrate cognitive functions—moment by moment
• Like conductor of a symphony orchestra

Executive Functions:
“Will you do it and, if so, how and when?” (Lezak, 2004)
Will you do it? Motivation/Activation
How will you do it? Planning/Organizing
When? Timing/Remembering
Executive Functions: Development and Demands

- EF capacity develops through childhood, into adolescence, and beyond; it is not fully present in early childhood
- Environmental demands for EF increase with age, from preschool through adulthood
- EF impairments often are not noticeable by age 12!

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Brown’s Model of Executive Functions Impaired in ADHD

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Model of Executive Functions in ADHD
1. Organize, Prioritize, and Activate

- Difficulty organizing tasks, materials
- Difficulty estimating time, prioritizing tasks
- Trouble getting started on work

(Brown, Outside the Box: Rethinking ADD/ADHD. 2017, Attention Deficit Disorders, 2005)

2. Focus, Shift, and Sustain Attention

- Loses focus when trying to listen or plan
- Easily distracted—internal/external
- Forgets what was read, needs to re-read

(Brown, Outside the Box: Rethinking ADD/ADHD. 2017, Attention Deficit Disorders, 2005)

3. Regulating Alertness, Effort, and Processing Speed

- Difficulty regulating sleep and alertness
- Quickly loses interest in task, especially longer projects; doesn’t sustain effort
- Difficult to complete task on time, especially in writing—“slow modem”

(Brown, Outside the Box: Rethinking ADD/ADHD. 2017, Attention Deficit Disorders, 2005)
4. Manage Frustration, Modulate Emotion

(Not included in DSM-V criteria)

• Emotions impact thoughts, actions too much
• Frustration, irritations, hurts, desires, worries, etc., experienced “like computer virus”
• “Can’t put it to the back of my mind”

(Brown, Outside the Box: Rethinking ADD/ADHD. 2017, Attention Deficit Disorders, 2005)

5. Utilize Working Memory, Access Recall

• Difficulty holding one or several things “on line” while attending to other tasks
• Difficulty “remembering to remember”
• Inadequate “search engine” for activating stored memories, integrating these with current info to guide current thoughts and actions

(Brown, Outside the Box: Rethinking ADD/ADHD. 2017, Attention Deficit Disorders, 2005)

6. Monitor and Self-Regulate Action

(Not just hyperactivity/impulsive behavior)

• Difficulty controlling actions, slowing self and/or speeding up as needed for tasks
• Doesn’t size up ongoing situations carefully
• Hard to monitor and modify own actions to fit situation/aims

(Brown, Outside the Box: Rethinking ADD/ADHD. 2017, Attention Deficit Disorders, 2005)
Brown’s Model of Executive Functions Impaired in ADHD

Symptom Characteristics

• Dimensional, not “all-or-nothing”
  ➢ Everyone sometimes has some impairments in these functions; in ADHD, it is a chronic, severe impairment

• Situational variability: “If I’m interested”
  ➢ Most persons with ADHD have a few activities where ADHD impairments are absent

ADHD looks like a willpower problem, but it isn’t!

The Central Mystery of ADHD

Situational Variability of Symptoms

• Why focus for this, but not that?
  “If it really interests me” (attraction)

• Why focus then, but not now?
  If I feel the gun to my head” (fear)

• Why is motivation in ADHD so variable in one situation to another?

(Brown, Outside the Box: Rethinking ADD/ADHD, 2017)

Two Hypotheses on the Central Mystery of ADHD

Will Power

vs

Erectile Dysfunction of the Mind
When Are ADHD Impairments Noticeable

- Some are obvious very early and are noticeable in preschool years
- Some are not noticeable until middle elementary or middle school
- Some are not apparent until child leaves home to go to college or later

Executive Functions operate in dynamic, integrated ways

- Most tasks requiring EF require integrated use of multiple aspects of EF
- EF usually operate without conscious deliberation, with automaticity, as in driving a car.
- Measured not with neuropsych tests, but with clinical assessment of functioning in daily life across time.

(Brown, Outside the Box: Rethinking ADD/ADHD, 2017; Intl. J. Disability, Devel. & Ed 2006)

Assessing Executive Function
How Can Executive Function Impairments of ADHD Be Assessed?

- When ADHD was seen as just a disruptive behavior disorder in childhood, diagnosis was based on observing overt behavior.
- Self/collateral report of performance on complex, everyday, self-managed tasks in clinical interviews and normed rating scales is a more sensitive diagnostic indicator of EF impairments than observation or neuropsych “tests of EF”.

Brown EF/A Scales

- Fully updated norms (for ages 3 through adults)
- New and updated test items that improve clarity and clinical relevance
- Based on Dr. Brown’s six cluster model of executive functions
- New parent form available for adolescents
- Both gender-specific and combined-gender norms available for all age groups
- Includes DSM-5 symptoms of ADHD and more
- Digital administration and scoring available with Q-global® web based system

What makes Brown EF/A Scales different?

- Items are more specific and contextual: Patients with ADHD experience much situational variability with ability to focus on specific activities which hold strong interest for them, but more limited ability to focus on less interesting tasks, even when they may be important. The Brown EF/A scales include items that ask about difficulties encountered in specific contexts, e.g. difficulty remembering what has been read (when reading is assigned, not self-selected texts).

- Multiple Perspective Assessment: The Brown EF/A scales will provide a comprehensive evaluation of an individual’s ADHD symptoms by assessing functioning using multiple perspectives: self-perspective, teacher’s perspective and parents’ perspective.
What makes Brown EF/A Scales different?

Focus on severity as opposed to frequency: Unlike other instruments, items on the Brown EF/A scales focus on severity of specific problems rather than frequency. This allows examinees to report more accurately how much difficulty they experience with each specific symptom.

Includes DSM-5 symptoms of ADHD and more: In addition to diagnostic criteria for ADHD defined in DSM-5, the Brown EF/A scales also assess other important aspects of executive function impairments found in persons with ADHD, but not yet included in DSM-5 diagnostic criteria for ADD/ADHD.

Based on Dr. Brown’s model of Executive Functions: The Brown EF/A scales are based on Dr. Brown’s six cluster model of executive functions that has been well recognized and explained in books and articles for more than a decade.

Available Forms

- 3 - 7 years  Parent, Teacher
- 8- 12 yrs. Parent, Teacher, Self-Report
- 13 – 18 yrs. Self-Report, Parent (new)
- 19+ years  Self-Report

(can be completed at home then reviewed in session, or administered orally by examiner)

Brown Scales Assess for Situational Variability of EF/A impairments

- Differentiates between tasks, e.g. reading, with strong or minimal interest for the individual
- Inquires about “when” writing or talking...
- Restless, fidgety when have to wait
- Hard for me to stop doing things I like to do, even when I know I should
Dimensions for Item Responses

Most other ADHD or EF rating scales ask frequency of behaviors related to ADHD in terms of “how often?” But “frequency” does not always indicate how much that problem actually impairs functioning.

Brown EF/A scales ask **how big** a problem?

0. No problem
1. Little problem
2. Medium problem
3. Big problem

Scoring and Report of the Brown EF/A Scales -3 options

**Q-global® Web-based Administration, Scoring, and Reporting** - Administer assessments using our digital Q-global platform. It enables you to quickly assess and efficiently organize examinee information, generate scores, and produce accurate comprehensive reports all via the Web.

**Paper Administration, Q-global Web-based Scoring and Reporting** – Administer assessments using record forms and score them using our digital Q-global platform. It enables you to quickly assess and efficiently organize examinee information, generate scores, and produce accurate comprehensive reports all via the Web.

**Paper Administration and Manual Scoring** – Administer assessments using record forms and score them yourself with answer sheets and scoring rules mentioned in the manual.

Brown EF/A Scales Cluster Items
Cluster Items

The following slides illustrate the 6 clusters included in the Brown EF/A Scales with some items (similar to the Brown EF/A Scales) included in each of the 6 clusters of executive functions often impaired in individuals with ADHD more than in most others of the same age.

Brown EF/A Scales use the 6 clusters to provide a profile of the individual's reported functioning relative to age-based and gender-based norms.

1. Activation

- Feels overwhelmed
- Has difficulty setting priorities
- Procrastinates excessively
- Has difficulty getting organized
- Is slow to react
- Is excessively rigid; a perfectionist
- Is hard to wake up in the morning
- Misunderstands directions

2. Focus

- Spaces out" when reading
- Becomes sidetracked easily
- Loses track in required reading; must reread
- Tries to pay attention but mind drifts
- Has difficulty grasping main idea in reading
- Gets lost in daydreaming
- Becomes distracted easily
- Stares off into spaced; seems "out of it"
- Doesn’t seem to be listening; gets complaints
### 3. Effort

- Feels sleepy during day
- Needs extra time to complete tasks
- Is criticized as lazy
- Produces inconsistent quality of work
- Does not work to potential
- Begins but effort fades quickly
- Has sloppy, hard-to-read penmanship
- Needs reminders for tasks
- Does not finish tasks

### 4. Emotion

- Is excessively impatient
- Is sensitive to criticism
- Becomes irritated easily; short-fused
- Has difficulty expressing anger
- Exhibits depressed mood
- Tends to be loner among peers
- Appears apathetic

### 5. Memory

- Is excessively forgetful
- Intends to do things but forgets
- Makes repeated restarts in writing
- Misplaces words/letters in writing
- Loses track of items
- Has difficulty memorizing
6. Monitoring and Self-Regulating Action

- Hard to work on or play with one thing for a long time, unless really fun
- Often butts in or interrupts
- Does papers too fast, hard to slow down enough to be careful
- Often grabs things or starts without waiting for permission or directions
- Parents complain about having to give same direction repeatedly
- Does too much teasing, arguing, etc. after being asked to stop it.

Uses for Brown EF/A Scales

- Screener to identify individuals who should receive a full evaluation for ADHD
- Use with clinical interview for evaluation of possible ADHD and related problems
- Tool for monitoring response to treatment

Books by Thomas E. Brown, Ph.D.

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