Pearson

Case Examples Using the New Brown EF/A Scales with Various Age Groups and Comorbidities

Presenter and Author

BROWN SCALES

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Author of **the Brown Attention-Deficit Disorder Scales® (Brown ADD Scales)** (1996, 2001) and the New **Brown Executive Function/Attention Scales (Brown EF/A Scales)**

Welcome Everybody!

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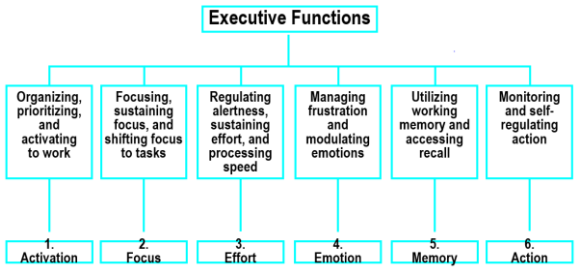
Model of Executive Functions in ADHD

Brown's Model of Executive Functions Impaired in ADHD



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

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1. Organize, Prioritize, and Activate

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- 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)

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2. Focus, Shift, and Sustain Attention

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- 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)

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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)

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4. Manage Frustration, Modulate Emotion

(Not included in DSM-5 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)

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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)

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6. Monitor and Self-Regulate Action

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(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)

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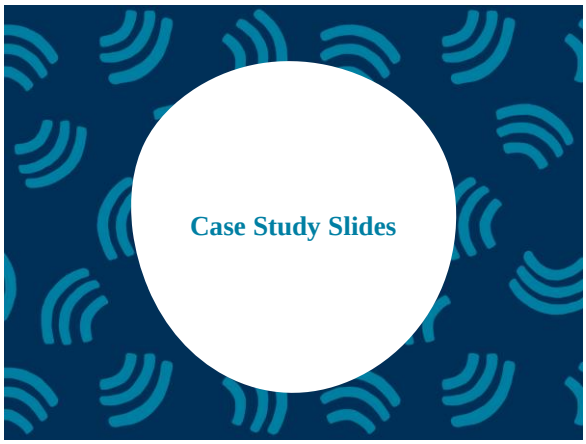

Cluster and Composite Scores: T Scores

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- T scores indicate the distance of scores from the norm group mean.
  - Standard scores with a mean of 50 and a standard deviation (SD) of 10.
  - T score of 80 indicates that the individual's score is 3 SDs above the norm group mean, and a T score of 30 is 2 SDs below the mean.
- T scores for the Brown EF/A Scales are non-normalized linear transformations of raw scores, so they preserve the shape of the raw-score distributions, some of which are significantly skewed.

Table 3.1 Cluster and Composite Score Classification

T-score range	Classification
70 and above	Markedly atypical (very significant problem)
60–69	Moderately atypical (significant problem)
55–59	Somewhat atypical (possibly significant problem)
54 and below	Typical (unlikely significant problem)

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Meet Harper

5 year old male; Preschooler

Presenting complaint: Removed from preschool due to excessive impulsivity and hyperactivity. Restless, difficulty staying in seat for more than a couple of minutes. Chronic difficulty falling asleep.

Teachers: Feared he may injure himself or others when frustrated.

Mother: Worried he may accidentally hurt his younger sibling.

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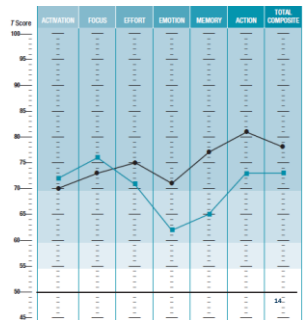
Summary Score for Harper

	Activation	Focus	Effort	Emotion	Memory	Action	Total Composite
● Parent	70	73	75	71	77	81	78
■ Teacher	72	76	71	62	65	73	73



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Meet Emma

7 year old female; 2nd grader

School (and after care): Behaves reasonably well.

Home: Adopted at birth; biological mother addicted to drugs. Extreme oppositional behavior with frequent tantrums throughout the day. Frustration triggers verbal and physical outbreaks toward **mother**.

Mother: Reacts with anger then takes refuge in the bathroom.

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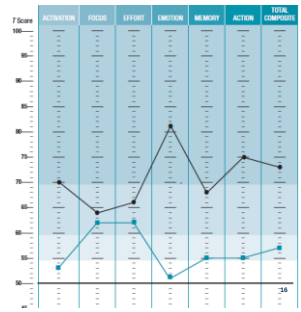
Summary Score for Emma

	Activation	Focus	Effort	Emotion	Memory	Action	Total Composite
● Parent	70	64	66	81	68	75	73
■ Teacher	53	62	62	51	55	55	57



Meet Sofia

8 year old female; 3rd grader

Presenting complaint: Problems with sustaining attention, excessive forgetfulness, and slow task completion.

School: Strong academically in all areas, but dislikes school "because it is so boring".

Home: No issues, but uses somatic complaints to resist going to school

Self: Does not want others to look at her

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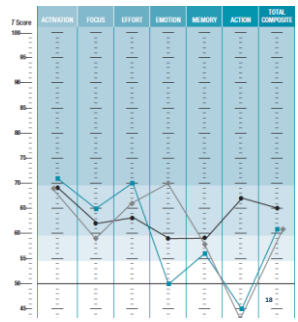
Summary Score for Sofia

	Activation	Focus	Effort	Emotion	Memory	Action	Total Composite
● Parent	69	62	63	59	59	67	65
■ Teacher	71	65	70	50	56	45	61
◆ Self-Report	69	59	66	70	58	43	61



Meet Robbie

10 year old male; 5th grader
Tall and overweight for his age

School: Appears unhappy and preoccupied. Bright, good grades, but doesn't complete written assignments or homework.

Self: Complains of being teased at school because of weight.

Home: Spends hours playing video games; only play dates with younger cousin

Parents: Worried about his isolation and transition to middle school

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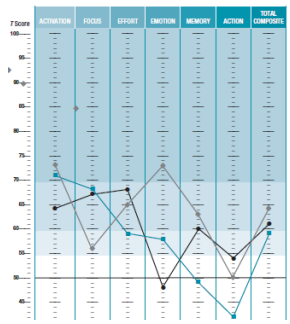
Summary Score for Robbie

	Activation	Focus	Effort	Emotion	Memory	Action	Total Composite
● Parent	64	67	68	48	60	54	61
■ Teacher	71	68	59	58	49	42	59
◆ Self-Report	73	56	65	73	63	50	64



Meet Alex

13 year old male; 7th grader

Presenting complaint: Trouble transitioning to middle school. Has had difficulty keeping track of assignments in subjects that require memorization (Spanish and Social Studies)

Self: Trouble putting his "good ideas" on paper. He has to get each sentence to sound "just right" before he can write the next sentence.

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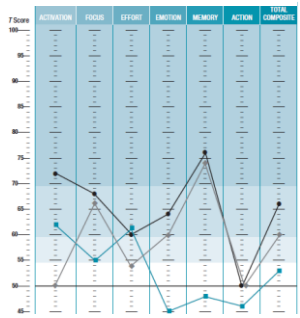
Summary Score for Alex

	Activation	Focus	Effort	Emotion	Memory	Action	Total Composite
● Parent	72	68	60	64	76	50	66
■ Teacher	62	55	61	45	48	46	53
◆ Self-Report	50	66	54	60	74	50	60



Meet Daniel

16 year old male; 10th grader

Presenting complaint: Requested evaluation because of declining grades despite many hours of study each day. Outstanding athlete, star soccer player.

Self: complains he studies for a test and has answers when quizzed at home before a test, but then can't recall answers the next day in class. He also complains of difficulty in recalling what he has just read, unless it's very interesting.

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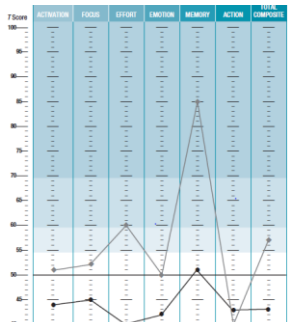
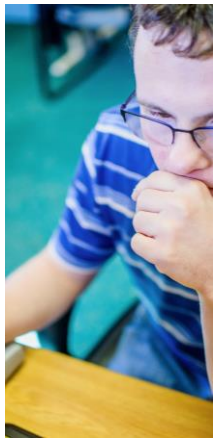
Summary Score for Daniel

	Activation	Focus	Effort	Emotion	Memory	Action	Total Composite
● Parent	44	45	40	42	51	43	43
◆ Self-Report	51	52	60	50	85	40	57





Meet Kendall

19 year old male; College Freshman

Presenting complaint: Sluggish and depressed in evaluation. Diagnosed with ADHD in 9th grade, responded well to medication, parental support and tutoring.

Home: Parents brought him for evaluation because he failed all but one of his courses during his first semester.

Self: Stopped taking medication in college but self-medicating with daily marijuana use and episodic drinking.

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Summary Score for Kendall

	Activation	Focus	Effort	Emotion	Memory	Action	Total Composite
Self-Report	80	72	80	63	85	56	75

Meet Ruby

43 year old female, ICU RN

Presenting complaint: Successful and respected RN for several years. Promoted to Nurse Manager, after which she began to feel overwhelmed by administrative duties

Home: Her 15 year old daughter had been diagnosed with ADHD one year earlier and responded well to medication, but Ruby had no previous history of ADHD in earlier years.

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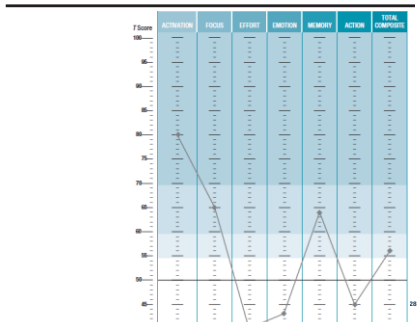
Summary Score for Ruby

	Activation	Focus	Effort	Emotion	Memory	Action	Total Composite
◆ Self-Report	80	65	40	43	64	45	56



ADHD with Comorbid Disorders

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ADHD Is a Complex Disorder Often Complicated by Comorbidity

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- In 50-70% of cases, ADHD is further complicated by one or more additional psychiatric or learning disorders
- Not only is it possible to have another disorder with ADHD, **it is 6 times more likely** in lifetime than for those without ADHD

Pliszka SR, et al. ADHD with Comorbid Disorders; 1999. Brown TE. Attention-Deficit Disorders and Comorbidities in Children, Adolescents, and Adults; 2000.

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Types of Comorbidity

1. **Cross-sectional** (within past 6-12 mos)
2. **Lifetime** (ever within entire life)
3. **Dynamic** (waxing and waning)
4. **Subthreshold** (impairing w/o full criteria)

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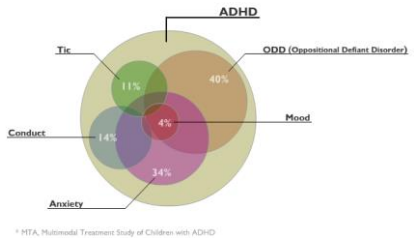
Other Psychiatric Disorders Often Accompany ADHD



70% of children with ADHD had at least one psychiatric disorder in addition to ADHD. (MTA, 1999)

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Comorbidity in MTA study

- Did not include learning disorders
- Selected only combined type ADHD
- Included only 7-9 yo children
- Cross sectional (6-12 mos)

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Lifetime Psychiatric Disorders in Adolescents (13-18 yrs) (n=10,123)

- Any mood disorder 14.3%
- Any anxiety disorder 31.9%
- Any behavior disorder 19.6%
- Any substance use disorder 11.4%
- Eating Disorders 2.7%
- Any disorder 49.5%

1 class: 58% 2 classes: 24% 3+ classes: 18%

Merikangas, et al, 2010

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Psychiatric Comorbidities in adults with ADHD

	12 mo.		Lifetime	
	%	OR	%	OR
Any mood	**25.5**	**3.5**	**45.4**	**3.0**
Any anxiety	**47.0**	**3.4**	**59.0**	**3.2**
Any substance	**14.7**	**2.8**	**35.8**	**2.8**
Any impulse[1]	**35.0**	**5.6**	**69.8**	**5.9**
Any psychiatric	**66.9**	**4.2**	**88.6**	**6.3**

[1]impulse = antisocial pd, ODD, CD, Intermittent explosive disorder, bulimia, gambling

Ntnl Comobidity Survey-Replication data presented by R.Kessler at APA, 5/1/04)

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An Alternative Theory of Comorbidity

- ADHD = **developmental impairment** of executive functions
- ADHD is not just one disorder among many
- ADHD is a **foundational disorder** that cross-cuts other disorders
- ADHD **increases risks of other disorders**

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Anxiety & Depression with ADHD

	Children	Adults
Anxiety	9%-34%	28%-47%
Depressive	14%-22%	38%-63%
Disruptive Mood Regulation	???	???

- Many individuals have more than 1 with ADHD
- Treat most acute problem first (suicidal, veg, panic)
- Medications may worsen or alleviate anxiety/irritability
- Watch "attentional bias" & working memory in both

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Bipolar Disorder with ADHD

	Children	Adults
Bipolar	2-21%	3-17%

- Estimated rates vary widely depending on operational definition, especially re: requiring episodicity
- Involves not only ability to regulate emotions, but also to a) inhibit and manage actions b) manage arousal
- If level of arousal is chronically too high or exacerbated by stimulants, guanfacine or mood stabilizers may be preferable.
- If needed, stimulants may be added when mood/arousal are stabilized

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Differentiating ADHD & Bipolar Disorder

Symptom	ADHD	Bipolar
Irritability/Rage	+/–	+++
Hyperactivity	++	+++
Inattention	++	+++
Depression	+/–	+++
Sub abuse	+	+++
Psychosis	–	++

Legend

+ = Presence
++ = More present
+++ = Most present
- = Absence
+/- = May be present

Wilens TE, Biederman J, Wozniak J, et al. Biol Psychiatry. 2003;54:1-8. Wilens et al. ADHD. In: Hendren, ed. Disruptive Behavioral Disorders in Youth. APA Press; Washington, DC; 1998.

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Oppositional Defiant Disorder with ADHD

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- Chronically angry/irritable
- Defiant, headstrong; Vindictive
- Incidence 35-50% (usually combined type ADHD)
  - May be quick/impulsive or sullen/sustained Not just feelings, overt verbal/physical actions
  - Onset usually ~ 12 yrs; Duration ~ 6 years >70% not CD by 18 yrs; Most never dx CD
- May respond to stimulants and/or guanfacine

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Conduct Disorder with ADHD

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- Adolescent lifetime incidence = 6.8%
- Serious delinquent behavior: Physical cruelty to people, theft w/confrontation of victim, fire-setting, persistent truancy
- Higher risk of substance use disorder
- Stims and/or guanfacine maybe useful

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ADHD + Sleep/Arousal Problems

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Falling asleep, awakening, daytime alertness

- May be primary, or secondary to other disorders: MDD, anxiety, substance abuse, sleep apnea
- Late afternoon stimulant dose may cause or help *dfa*
- Assess sleep schedule and sleep "hygiene" consider anxiety, breathing problems, OSA

dfa: Melatonin, Benadryl, clonidine, Klon
daw: In-bed stim dose 1 hr before get-up; small dose of Daytrana MPH patch during night

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OCD with ADHD

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Normal obsessions/compulsions vs disorder
(OCD in 10-30% of ADHD v 4%)

- Obsessions: variable “overfocusing”
- Compulsions: rituals/ perseveration”
- Excessive perfectionism, e.g. in writing
- Stims may worsen
- SSRI useful for OCD, not for ADHD
- Stims + SSRI or clomipramine and/or behav tx for OCD

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Substance Use Disorders with ADHD

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Odds ratio for SUD in adults with ADHD

- Nicotine 2.4-2.8
- Alcohol 1.4-1.7
- Marijuana 1.5-2.3
- Cocaine 2.05
- Any SUD 2.6-3.4

ADHD meds alone do not alleviate SUD
Childhood med tx for ADHD may reduce risk
Education & 12 Step Programs
“clean” before med treatment: How long??
“Abstinence” vs “Harm Reduction”
rehab vs outpatient relapse prevention

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Substance Use Disorders with ADHD

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Substance	Odds ratio
Nicotine	2.4-2.8
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Cocaine	2.05
Any Substance Use Disorder	2.6-3.4

- ADHD meds alone do not alleviate SUD
- Childhood medication Tx for ADHD may reduce risk
- Education & 12 Step Programs
- “clean” before med treatment: How long??
- “Abstinence” vs “Harm Reduction”
- rehab vs outpatient and relapse prevention

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Autism Spectrum Disorders with ADHD

Prevalence and Symptoms
- 20-50% of those with ADHD have ASD
- If signif. ADHD sx in ASD, consider ADHD tx
- Significant social impairment (*poor in: empathy, non-verbal communication, developing friendships*); pragmatic language; and all-absorbing interest

Treatment and Support
- Based on spectrum of sx severity & cognitive abilities
- Need school supports
- Social skills instruction
- Stimulants->ADHD sx (titrate cautiously)->ATX
- ?SSRI for OCD, anxiety

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Differential Dx vs Multiple Diagnoses

- Multiple perspectives on presenting sx and priorities: (Pt view? Others' Views)
- Time frames for presenting sx?
- Aspects of functioning going OK?
- Wide screen for possibly related disorders
- Which meet full dx criteria? Impairment?
- Either/or vs Both/and ---> Priorities??

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Complicated ADDs

- Expect complications in >50% cases
- Complicating factors often interact
- Family stress: contributory & reactive
- Individual problems may mask other problems
- Setting may make big difference +/-
- Monitor meds carefully, ?change/combine
- Attend to health as well as illness
- Improvement is often slow and mixed

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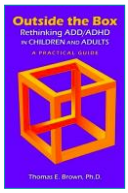

Books by Thomas E. Brown, Ph.D.

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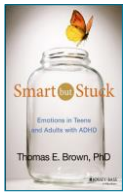
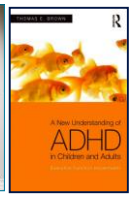
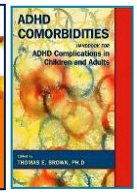
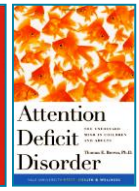
www.BrownADHDclinic.com









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Questions or Comments

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