



**Special Learning, Inc.**

*A Global Leader in Digital Autism Solutions*



# **ADHD STRATEGIES**

---

Family Training & Involvement

# Housekeeping

1. Post your questions in the Questions Box. If we have time, one of our moderators will select a few to present to our panelists.
2. Downloadable tools are available in handouts.
3. If you experience technical issues during the webinar, contact GotoWebinar directly by calling (877) 582-7011.
4. There will be a 5-minute break near the half way point.
5. A recorded version of this webinar will be available 7 to 10 days after the live event.
6. Please complete the survey after the webinar to receive a Certificate of Completion and CEU Certification.
7. If you have any post webinar questions or comments, please send an email to contact [@special-learning.com](mailto:@special-learning.com).
8. This webinar is eligible for the following Continuing Education Credits:  
2 Type II (BACB<sup>®</sup>) or QABA<sup>®</sup> (2 General (In-Person)) and APA (2 General: Home Study)



**Special Learning, Inc.** is approved by the American Psychological Association to sponsor continuing education for psychologists. **Special Learning, Inc.** maintains responsibility for this program and its content.

**NOTE:** APA CEUs are **ONLY** available for the recorded webinar. You will receive a 30-day access to the recording

# Learning Objectives

---

- Review signs and symptoms of Attention Deficit Disorder (ADHD)
- Identify when referral for services is appropriate for an individual with ADHD
- Demonstrate 2 evidenced-based behavior management strategies to use with individuals diagnosed with ADHD.
- Describe the importance of family involvement in management of ADHD in children and adolescents.
- Select 2 management strategies to utilize in clinic settings when treating ADHD.
- Describe evidence-based medications used to treat ADHD, including effectiveness and side effects.
- Describe educational information and tools to use when working with families with child(ren) with ADHD

# Disclaimer

---

- This presentation discusses evidence based behavioral treatments for persons with an ADHD diagnosis. Some modalities may or may not be within your perspective scope of practice.
- Do not attempt any treatment modalities for which you have not been formally trained.
- Do not attempt any treatment modalities that are not within your professional governing body's area of expertise.
- Do not attempt any treatment modalities for which your current legal, license and/or certification does not approve as an effective approach under your profession.
- The modalities expressed in this presentation are for comprehension and knowledge purposes. By increasing understanding, a Minimal Viable Clinician™ (MVC™) can incorporate a more collaborative disciplinary approach, and in turn, obtain positive outcomes for the people whom you serve quicker.

# Facilitator Bio



## Karen Chung

Karen is the Founder and CEO of Special Learning. She started the company in 2010 upon learning about the effectiveness of Applied Behavior Analysis (ABA) and the reality that over 95% of the world did not have access to **quality** ABA. As an entrepreneur with over 20 years of business experience, she started Special Learning to leverage existing and emerging technology to make quality ABA resources and services available to parents, educators and professionals around the world.

Karen's entrepreneurial experience includes starting and growing a diversity retained executive search firm specializing in placing women and minority executives in leadership positions of Fortune 1,000 companies. Her investment banking background includes working with various venture capital and private equity companies to facilitate deal flow while representing CEOs of rapidly growing companies seeking to raise equity and debt capital for various middle market businesses and commercial real estate developers. Her corporate background includes various leadership and functional roles in Fortune 1,000 and middle market companies. Her additional entrepreneurial activities include owning and operating high end boutique

She graduated with a Masters of Management degree from Kellogg Graduate School of Management of Northwestern University. She is a Certified Public Accountant and a recipient of the Elijah Watts Sells Award from the American Institute of Certified Public Accounts (AICPA).

# Presenter Bio

---



**Dr. Ronald T Brown, PhD** is a Professor and Dean in School of Allied Health Sciences at University of Nevada, Las Vegas, USA. He served as the Associate Vice-Chancellor for Academic (Health Affairs) at the University of North Texas System. Dr. Brown completed his Ph.D. from Georgia State University and has been the past President of the Society of Pediatric Psychology and the Association of Psychologists of Academic Health Centers. He is a board certified clinical health psychologist and has been an active clinician, teacher, advocate and investigator.

Dr. Brown has served as a member of the Behavioral Medicine study section of the NIH and chaired several special panels at NIH. Dr. Ronald Brown's area of specialization includes behavioral sciences, pediatric psychology, attention deficit disorders, neuropsychology, psychopharmacology, learning disabilities and psychosocial oncology. He is a current editor of *Journal of Clinical Psychology in Medical Settings*. He served as a previous editor of *Professional Psychology: Research and Practice* and *Journal of Pediatric Psychology*.



# Presenter Bio



**Dr. Deborah Padgett Coehlo, PhD, C-PNP, PMHS, CFLE** is a certified Pediatric Nurse Practitioner and Pediatric Mental Health Specialist with a Doctoral Degree in Family Sciences and Human Development.

A developmental and behavioral specialist, Dr. Coehlo is a Founder and Director of Juniper Pediatrics, a clinic modeled after John F. Kennedy's multidisciplinary system of care. Using a holistic, integrated care model, Juniper provides counseling, medication management and family therapy for children with ASD, ADHD and other childhood mental health disorders.

Dr. Coehlo completed her Masters in Nursing with a specialty in parent-child nursing. She spent 10 years working at the Child Development Center at the University of Washington in the Genetics Clinic and Multidisciplinary Clinic. In 1999, she completed her Doctorate degree in Human Development and Family Sciences.

She has continued to teach at the undergraduate and graduate level, and has pursued research in the area of social networking, transition to out of home care for families, and child development. Dr. Coehlo is a co-editor for the 4th and 5th edition of Family Health Nursing (F.A. Davis, 2010/2013) and has published several journal articles in the areas of families choosing residential care, families in transition, family health nursing, and care of children with special health care needs.

# Presenter Bio

---



**Mike Marroquin PhD, BCBA-D, New York State Licensed Behavior Analyst**  
Franklin Square School District, New York

Dr. Michael “Mike” Marroquin, is an Autism graduate & undergraduate professor at Queens College (CUNY). He also is a practicing consultant for families and school districts in New York. He is passionate about making behavior analysis accessible to students in public school settings. He specializes in parent and staff training on the use of ABA methodologies in both home and school settings to provide students with a consistent set of expectations in both environments.

Dr. Mike currently Supervises BCBA<sup>®</sup> applicants and state licensure applicants in public school settings. As a behavior analyst, he uses ABA to teach behavior analysis in higher education, school and home.



# Review of Facts

ADHD is one of the most common neuro-developmental disorders diagnosed in childhood and adolescents

- Estimated 8% to 9% of children 3-17 have ADHD in the U.S.
- Estimated 4% of adults have ADHD in the U.S.
- Symptoms broadly include difficulties in the area of:
  - Attention
  - Focus
  - Concentration
  - Hyperactivity
  - Impulsivity
  - Poor executive function skills
- Impaired functioning manifest in home, school, vocational and community settings.
- Impaired functioning affects social interactions in home, school, vocational and community settings.
- Symptoms are considered chronic and persist throughout adulthood.
- Proper treatment can effectively manage symptoms and increase functioning regardless of age

**If not managed (treated), ADHD can decrease an individual's quality of life throughout their entire life.**

# Evidence Says...

---

ADHD is considered a chronic condition and should be approached as such.

The evidence strongly supports the use of **stimulant medications** for treating the core symptoms of children with ADHD and to improve functioning.

**Behavior therapy** alone has only limited effect on symptoms or functioning of children with ADHD, although combining behavior therapy with medication seems to improve functioning and may decrease the amount of (stimulant) medication needed.

# Parenting Tips for ADHD

---

- Accept the fact that [children with ADHD](#) have functionally different brains from those of other children.
- Learn to use basic behavior management strategies
- Select acceptable and unacceptable behaviors
- Define rules, but allow flexibility
- Manage aggression
- Create structure and limit distractions
- Break tasks into manageable pieces
- Simplify and organize your child's life
- Encourage exercise
- Regulate sleep patterns
- Encourage out-loud thinking
- Encourage and reinforce positive behavior
  
- Take care of yourself
  - Find individualized counseling
  - Take breaks
  - Calm yourself

**Above all Believe in your child!**

# Causes of ADHD

## Genetics

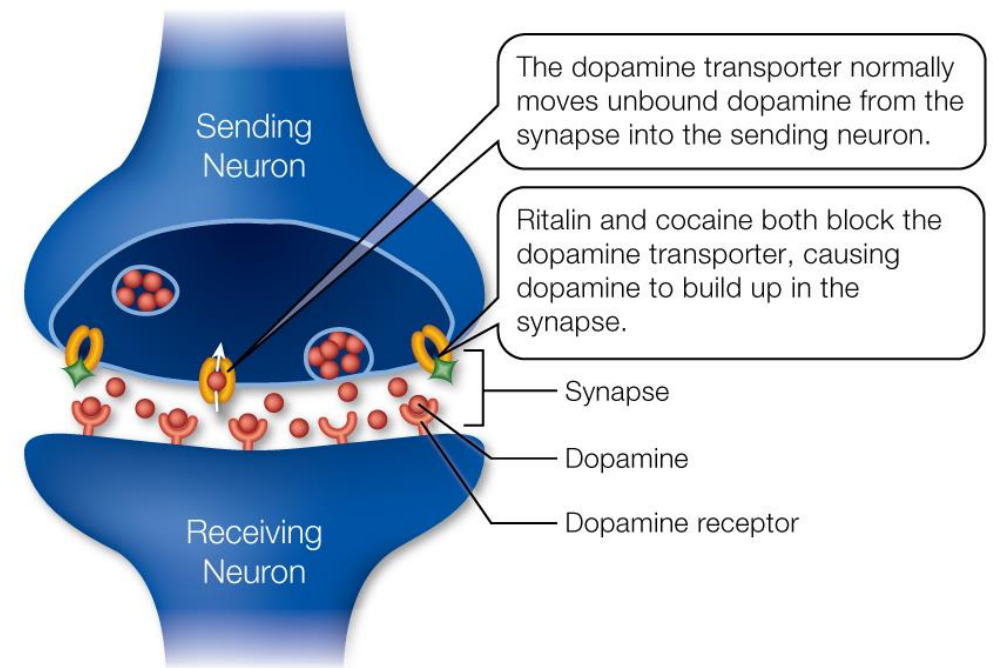
- Research shows that genes may be a large contributor to ADHD
- ADHD often runs in families and some trends in specific brain areas that contribute to attention.

## Environmental Factors

- Studies show a link between cigarette smoking and alcohol use during pregnancy and children who have ADHD.

## Decreased dopamine in the frontal lobe

- Impacts executive functioning skills
- Increased risk with prematurity, early childhood trauma, and co-occurring depression, anxiety, mood disorders, and learning disabilities.
- Drug induced with methamphetamine addiction



# ADHD Symptoms: Manifestation

---

## Signs of Inattention

- Becoming easily distracted.
- Jumping from activity to activity.
- Becoming bored with a task quickly.
- Difficulty focusing attention or completing a single task or activity.
- Trouble completing or turning in homework assignments.
- Losing things such as school supplies or toys.
- Not listening or paying attention when spoken to.
- Daydreaming or wandering with lack of motivation.
- Difficulty processing information quickly.
- Struggling to follow directions.

# ADHD Symptoms: Manifestation

---

## Signs of Hyperactivity

- Fidgeting and squirming, having trouble sitting still.
- Non-stop talking.
- Touching or playing with everything.
- Difficulty doing quiet tasks or activities.

## Signs of Impulsivity

- Impatience
- Acting without regard for consequences.
- Blurting things out.
- Difficulty taking turns, waiting or sharing.
- Interrupting others.



# ADHD: Common Related Conditions

---

Around two-thirds of children with ADHD also have another condition. Common conditions associated with ADHD include the following.

- Learning disabilities
- Oppositional defiant disorder: refusal to accept directions or authority from adults or others
- Conduct disorder, persistent destructive or violent behaviors
- [Anxiety](#) and [depression](#)
- [Obsessive-compulsive disorder](#)
- [Bipolar disorder](#)
- Tourette's syndrome
- Sleep disorders
- Bed-wetting
- Substance abuse

# Impairments in Functioning and Consequences

FOCUS	CONCENTRATION	HYPERACTIVITY	IMPULSIVITY	POOR EXECUTIVE FUNCTIONING SKILLS
Hyper focus (i.e. perseveration on one task until complete without regard for daily living activities)	Difficulty with concentration (i.e. move from one task to another without completing the first)	Restless/fidgeting (i.e. seeking external and/or internal stimulation)	Risk taking behaviors (i.e. engaging in unprotected sexual activity)	Excessive talking (i.e. continue to speak about a subject and peers present as not interested)
Procrastination (i.e. initiates imperative tasks right before or after a due date for task)	Become bored easily (i.e. may look-off/ "space- out" during tasks)	Difficulties with relaxing (i.e. engages in "constant" body movement and physical body and/or mental break are not achieved)	Thrill seeking behaviors (i.e. driving a motorcycle on busy highway at 150 mph [241.4 km/h] without a helmet)	Emotional difficulties (i.e. low self-esteem, depression, anxiety, low levels of motivation, hypersensitive to criticism)

## SOCIAL IMPACT AND FUNCTIONING ON INDIVIDUAL IF NOT ADDRESSED

Functional Impairment at home

Functional impairments at school (i.e. academic, social, compliance)

Difficulty in maintaining healthy relationships with family members

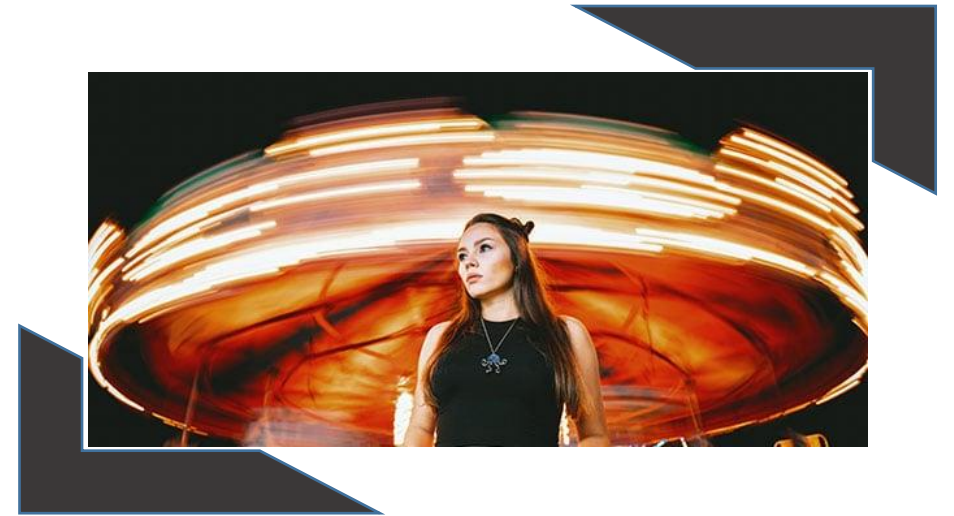
Difficulty in forming and maintaining health relationships with teachers

Difficulty in forming and maintaining healthy relationships with peers (bullying)

Difficulty obtaining and maintaining long-term employment

# Treatment Overview

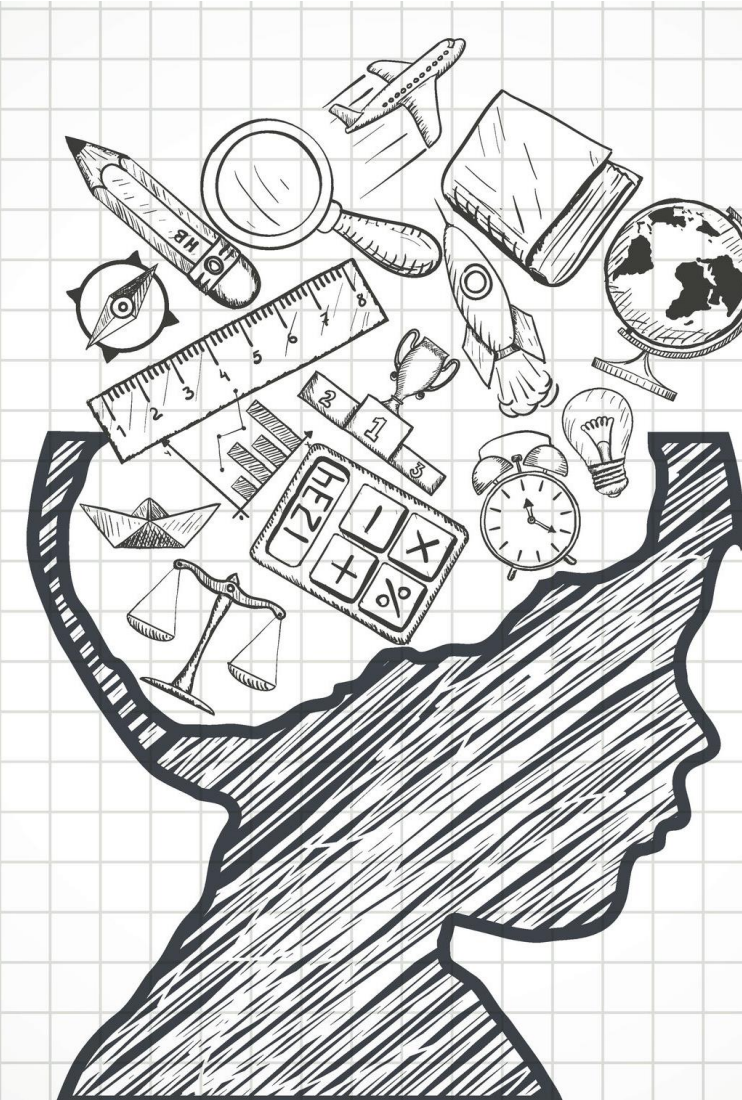
- Focus is on managing symptoms
  - Parent Education
    - Causes
    - Treatment options: medication, behavioral therapy
    - Parenting strategies
  - Medication
  - Behavioral Interventions (ABA, CBT and DBT)
  - Social Skills Training (Behavioral Skills Training (BST))
  - Executive Functioning
  
- Treatment of co-occurring conditions
  - Education on importance of treating co-occurring conditions
  - Parent involvement in treating co-occurring conditions





# 5-Minute Break/Intermission

# Living with ADHD



- An individual with ADHD knows what to do but cannot do it.
- ADHD impacts all areas of executive function.
- Teaching skills alone is inadequate
  - Environmental changes are essential
  - Practice working memory (evidence is incomplete)
  - Delayed consequences do not work, due to distorted time (Note: Social consequences are often delayed)

# ADHD: A Day in a Life

---

“As someone who runs a YouTube channel called [How to ADHD](#), who’s engaged to someone with ADHD, who has ADHD herself, and who talks to tens of thousands of ADHD brains, I can tell you this — if you’ve met one person with ADHD, you’ve met *one person* with ADHD. We’re vastly different creatures.” -- *Jessica McCabe, Youtube Vlogger*

We do have a surprising amount in common though, especially when it comes to the stuff we experience on a daily basis. Most days, it’s:

- a rollercoaster of successes and failures
- some moments feeling like a genius, and others feeling stupid
- both distractibility and hyperfocus
- good intentions gone off the rails
- little emotional wounds from being judged by the outside world — or ourselves!
- the healing from being understood and accepted for who we are



# ADHD Interventions

IMPAIRMENTS	INTERVENTIONS					
		Behavioral Interventions				
	Medication	Applied Behavior Analysis (ABA)	Cognitive Behavioral Therapy (CBT)	Dialectical Behavior Therapy (DBT)	Family Involvement	Student Involvement / Self Management
Daily Living	X	Independent Living Skills	X	X	X	X
Academic	X	Academic Programs	X	X	X	X
Social	X	Socials Skills Programs	X	X	X	X
Vocational	X	Pre-vocational and Vocational Skills Training	X	X	X	X
Relationships	X	Parent and Family Training	X	X	X	X

# Benefits of Medication

---

1. Therapeutic effects of the stimulants begin almost immediately (about an hour after initiation of medication).
2. Medication involves less effort on the part of the teacher and the caregivers (parents).
3. Medication allows student to be in a “state of learning.”
4. Stimulant medication used to manage children with ADHD has also been found to have a contagion effect
  - Improves other children’s behavior in the classroom
  - Teachers exhibit fewer controlling behaviors in the classroom.
5. The evidence-base for the stimulants is one of the best documented therapies in the entire field of child psychiatry.
6. The safety profile of the stimulants have been well documented over the past many years.



# Behavioral Strategies

# Applied Behavior Analysis (ABA)

Can be used by all stakeholders (self, parent, family member, teacher, peer and service providers) across all settings

- Antecedent Strategies
- Shaping
- Task analysis
- Preference assessment
- Reinforcement
  - Frequency (high magnitude)
  - Dense schedule (fixed ratio or fixed interval)
- Visual and/or auditory prompts (plus plan to fade-out prompts)
- Token economies and Points Systems with carry-over across settings
- Response cost (Start with functional, non-aversive procedures)
- Functionally equivalent replacement behaviors
- Structured environment (routine)
- Transition

**Self-monitoring (teach student)**

# Application of ABA in Treatment of ADHD

## ABA in the Treatment of Attention Deficit and Hyperactivity Disorders

*Applied behavior analysis is used in the treatment of attention deficit disorder and attention deficit/hyperactivity disorder by (1) instituting behavioral changes to help make the socially disruptive symptoms less prominent and (2) to allow patients to function more easily and with greater success in both public and private settings.*

- It is estimated that 80% of children diagnosed with ADHD exhibit a variety of behavior problems ([Cantwell & Baker, 1991](#)).
- Most effective strategy to decrease or eliminate behavior problems is to develop an intervention based on the identified function of the behavior ([Carr & Durand, 1985](#)).
- Peer attention can be a functional reinforcer for some children with ADHD, and the use of peer-mediated interventions can decrease behavior problems for these children (e.g., [Flood, Wilder, Flood, & Masuda, 2002](#))

# Schedules of Reinforcement: Delayed vs. Continuous

- Continuous reinforcement: **Video Games: Risks and Benefits**
  - *Escape from current tasks*
  - *Attention from peers*
  - *Tangible (access to video games)*
  - *Sensory (tactile/visual input, chemicals released in brain etc.)*
  - *Response effort lower*
  - *Addiction risks*
  - **Instant “gratification”**
- Delayed reinforcement: **Homework or Saving Money**
  - Requires ability to engage in self-control
  - Requires ability to plan and follow-through
  - *Response effort is higher*
  - *Reinforcer value generally higher*
  - *No addiction risks*
  - **Delayed “gratification”**





# Cognitive Behavioral Therapy (CBT)

- Most effective when compared to all other counseling models (Levine & Anshel, 2011)
- Behavioral interventions are effective in addressing symptoms of inattention, poor impulse control, and motor restlessness, which occur as part of pre-verbal processes.
- Preverbal skills are not always appropriate targets for CBT
- Is effective when used for children over 8 years of age capable of self-reflection



# Parent Involvement

---

Parents and teachers often have difficulty understanding what a student can and cannot control.

## **Staff and Parent trainings on behavioral strategies and techniques should include:**

- Setting achievable goals
- Fading prompts (instructions/commands) over time
- Selecting appropriate reinforcers
- Allowing the child to make choices
- Being flexible when attempting to achieve desired outcomes
  - Demands should be within the child's ability to achieve
  - Add flexibility – “Sit in your seat” vs “stay in your area”
  - Different settings affects effectiveness

**Importance of consistency across settings (home and classroom)**

# Student Involvement / Self Management

---

Students can be taught to participate in managing their ADHD symptoms by using behavioral strategies. Self buy-in.

## Self management

- Identify behaviors they want to work on
- Incorporating choice
- Create token charts together
- Select reinforcers
  - Public or private
- Use technology for reminders
  - Breaks
  - Deadlines (due dates)
- **Self advocacy (e.g. Participate in IEP Meetings)**

# Self Management Tools

- Task Planner and Calendar
  - Visualize the passage of time, making time “real”
  - Break down big projects into manageable tasks
  - Reinforcement: Sense of accomplishment after
- Keychain Pill Container
- Command Center / Visual Board
  - Whiteboard / Message board
  - Family calendar
  - Essentials keeper - keys, purse, notes, backpacks
- Charging Station
- “The Pomodoro Technique”
  - Time saving techniques
- Success Jar
  - Visual way to celebrate small successes

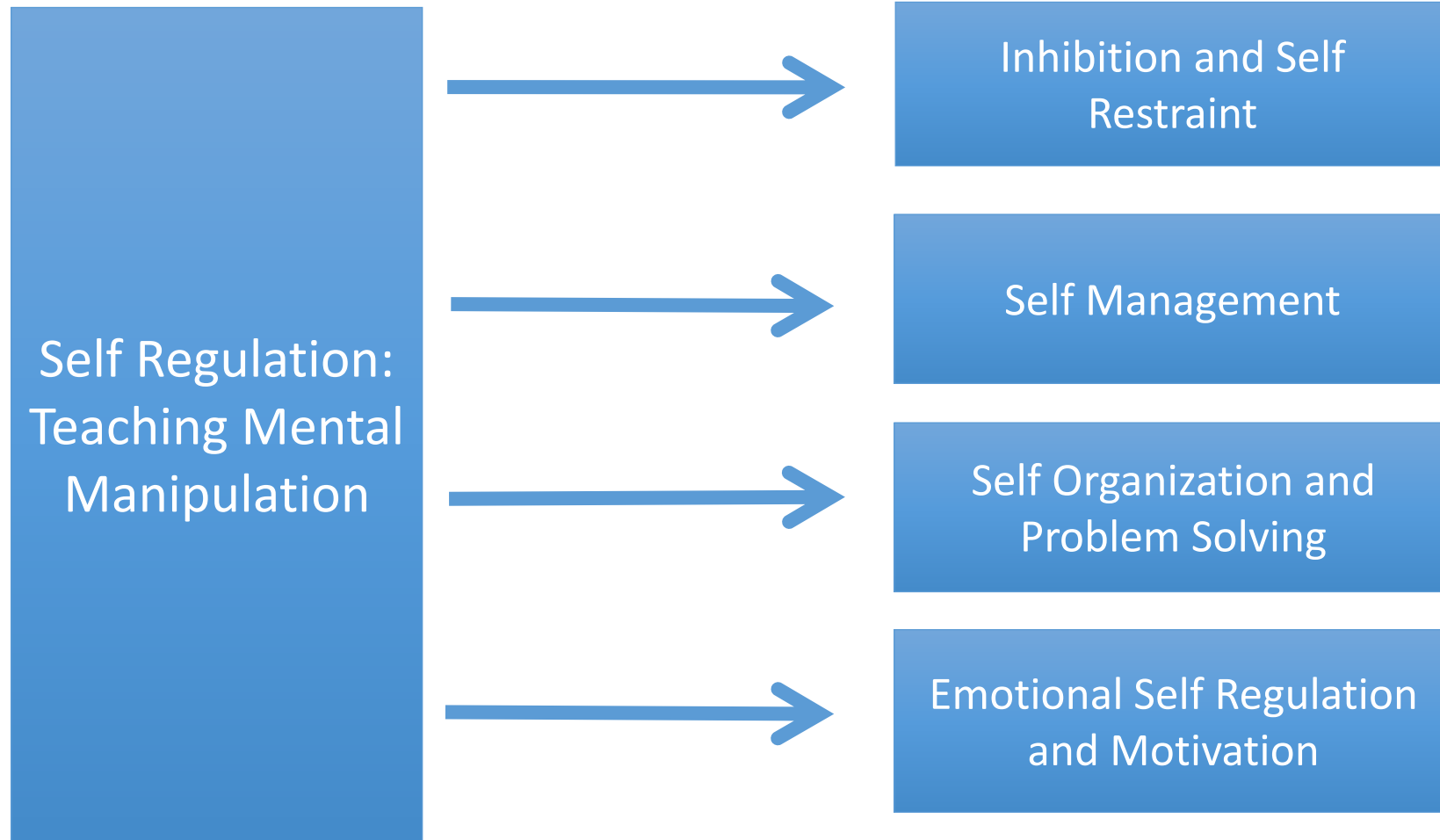


# Other ADHD Management Strategies / Considerations



- Regular exercise: More effective than with any other mental health diagnosis
- Healthy eating and regular meals
- Healthy sleep patterns (7 to 9 hours of sleep per night)
- Taking regular breaks from concentration (every 10/3 rule).
- Use of tools to organize tasks and meet deadlines (Apps, alarms, color coding, cleared workspace)
- Use of tools and strategies to decrease distractibility (i.e., headphones, quiet spaces).
- Find passion
- Spend time outdoors
- Limit screen time
- Monitor, evaluate and adjust
- Use an integrated team approach
  - Parent
  - Teacher
  - Professionals
  - Student

# Importance of Executive Functioning Treatment



# Benefits of Using Both Medication *and* Behavioral Interventions

1. Medication provides immediate effect
2. Seeing immediate positive effects of medication offers sense of empowerment and control
3. Impact of effective management strategies (combined medication and behavioral strategies) offer hope
4. When the medication has worn-off, behavior management can help with coping with difficult transitional periods
  - Morning routines; getting home from school; homework; getting ready for bed
5. Behavior management can extend some of the beneficial effects of medication after the beneficial effects of the medication have dissipated.
6. Stimulant medications work well for many of the symptoms associated with ADHD
7. Behavioral strategies work well for many of the functional impairments associated with ADHD
  - Enhancing academic efficiency and academic performance
  - Improving social interaction with peers, teachers and family members

**Combination of medication and behavioral strategies enhance both symptoms and functional outcomes.**



# Case Study



# Case Study: Intake



## **Background:**

Alex is a 10-year-old male diagnosed with ADHD at age 5 years, with concurrent learning disability in reading and writing. He has reported difficulties in academic, social, and home functioning, requiring extensive school support and weekly individual and family counseling.

His current medications include Dexmethylphenidate ER 15 mg per day, with added Dexmethylphenidate IR 5 mg in the morning and the early afternoon.

## **Parent Interview:**

Parents note that Alex was adopted at 3 days of age. They described Alex as an active toddler, progressing to an “out of control” five-year-old. They described spending hours during times of transition (i.e., getting ready for school, or going to bed). They noted they control his behavior with use of an I-Pad, noting Alex spends 3-4 hours on his I-Pad each day. Father stated he is the primary parent now as Alex’s mother is “burned out and checked out”, spending more and more time at work. They noted Alex has been on several medications, and his current medications “work the best”. He has also had extensive neuropsych testing, showing an overall IQ of 88, with difficulty with visual processing, fluency, and executive functioning. Using the Conner’s Comprehensive Behavioral Checklist-Parent Report, Alex scored 9 out of 9 symptoms of inattention and 9 out of 9 symptoms of hyperactivity/impulsivity.

# Case Study: Intake

---



## **Teacher Interview:**

Alex's teacher noted that Alex is easily distracted throughout the day and does much better if taught in a quiet room with direct 1:1 instruction. She also noted that Alex receives weekly speech therapy, and after school tutoring for reading and writing.

Writing samples were shared, which showed writing skills closer to the first-grade level with simple sentences and numerous errors. Alex's teacher noted he rarely completes assignments, and when he turns in a completed assignment, it is messy and full of errors and omissions.

Using the Conner's Comprehensive Behavioral Checklist-Teacher Report, Alex scored 9 out of 9 symptoms of inattention and 9 out of 9 symptoms of hyperactivity/impulsivity.

# Case Study: Intake

---



## **Child Observations:**

Alex was observed on the playground, in the classroom, and during a home visit. During the hours of peak medication effectiveness, Alex was cooperative, but remained distractible. His overall behavior was closer to a younger child of 6-7 years of age.

He had a difficult time interacting with peers, especially during unstructured time. He tended to make loud, inappropriate noises, and rarely interacted with organized games (i.e., kick ball).

At home, Alex spent over 50% of the time playing on his I-Pad. He refused to do more than 80% of what his parents asked him to do. When spoken to directly, Alex was friendly and cooperative, asking appropriate questions and answering questions with thought.

He was open about being lonely at school and home, and stated he thought “I am just a weirdo”. He constantly fidgeted with his shirt and could only remain seated for less than 10 minutes.

# Case Study: Treatment Plan (Behavioral Interventions)



\* = Applied  
Behavior Analysis  
approaches

## Course of Treatment

- \*Initial feedback: Feedback given to the school personnel, the parents, and Alex.
- Multi-model approach to treatment
  - \*School accommodations (environmental manipulations)
  - \*Antecedent focused interventions
    - \*Looking at the environment (Pfiffner et al., 2006) using a Functional Assessment
  - \*Behaviorally Based Parent and Teacher Training
    - \*Behavior modification using positive and negative consequences for steps towards success.
      - \*Token system to increase motivation on a dense schedule
        - \*Consistency between home and school, with clear, Alex-directed goals
    - Example: Alex had been reinforced for disruptive behavior by being sent to the student teacher for 1:1 attention. This was changed to providing attention in the classroom when he was engaged.

# Case Study: Treatment Plan (Behavioral Interventions)



\* = Applied  
Behavior Analysis  
approaches

- \*Improved attention by using frequent and targeted prompting (eye contact, calling his name, calm repetition).
  - \*Breaking a task into manageable parts. (*task analysis*)
  - \*Decreasing distractions by moving Alex to the front of the classroom by the teacher (*environmental modifications*)
  - \*Decreasing number of tasks to be completed; measuring competence rather than amount (*avoiding ratio strain*)
  - \*Color coding assignments (*visual supports*)
  - \*Organizing learning space and supplies
    - \*Improved positive attention with monitoring (*VI Schedule of NCR*)
    - \*Active ignoring of minor “hiccups” (*planned ignoring*)
    - \*Active play with parents a minimum of 15 minutes per day (*pairing*)

# Case Study: Treatment Plan (Behavioral Interventions)



- Parent and Teacher Focused Cognitive-Behavioral Interventions
  - Understanding the connection between attributions about a behavior and child's emotional and behavioral response (Levine & Anshel, 2011)
  - Example: Cognitive distortion of “telling the future” (predicting a negative outcome): “I have tried all this before- it won't work”; or magnification: “I don't have time for this”.

# Case Study: Treatment Plan (Psychopharmacological Tx)



- Continued Psychopharmacological treatment
  - Increased dose of Dexmethylphenidate ER to 20 mg per day, with continued 5 mg IR at 7:00 am and 3:00 pm
  - \*Continued monitoring of growth, neurological status, cardiac function, side effects, efficacy (Vanderbuilt or Conner's Questionnaires), and academic progress. *(Data Collection: Monitor behaviors with phase change lines as medication is titrated)*

\* = Applied  
Behavior Analysis  
approaches



# Case Study: Treatment (Individual Counseling Goals)



\* = Applied Behavior Analysis approaches

- Psycho-education about ADHD
  - What is ADHD and who else has this label? (Einstein)
  - How does medication work and why is it important to take it (*may address this behavioral if medication refusal is behavior being monitored*)
  - Why are the other parts of treatment important and what is Alex's part
  - \*What to expect over time (*setting expectations and goals of ABA programming*)
- Identify negative cognitions about self
- Change negative cognitions to positive cognitions
- \*Participate in developing, monitoring, and evaluating teacher and parent interventions
- \*Develop positive coping strategies to cope with challenges (*i.e. Coping skills replacement behavior*)
- \*Social skills development (*i.e. accepting delay and/or denial in reinforcement*)



# Case Study: Assessment



\* = Applied  
Behavior Analysis  
Assessment

## Classroom observations

- \*Alex was able to participate in the classroom full time, with a drop in out of class time from 80 minutes per day to 0 minutes per day after one month. (*Increased duration of attending class*)

## Parent and teacher ADHD Rating Scales

- Alex dropped from a t-score of 99 in inattention, hyperactivity, and impulsivity to a t-score of 62 after one month on the designed treatment plan.
- \*Daily report cards shared between the teacher and parents reported improved behavior across settings. (*Behavioral Monitoring- possible point system*)
- \*Alex has 3 close friends after 6 months. (*Social significance of behavior change program- ultimate/terminal outcomes*)
- \*The only change needed is updating his rewards for tokens earned (*Thinning schedule of reinforcement to replicate the least intrusive and most natural environment*)

# Case Study: Summary



\* = Applied  
Behavior Analysis  
Assessment

ADHD treatment is dependent on a careful evaluation, individualized multi-model approach to treatment, ongoing assessment of progress, and fine-tuning the plan based on the assessment of progress.

- \*Input is needed from the school, parents, and the child. (*Getting buy-in from stakeholders*)
- \*Active participation is needed from the school, parents, and the child. (*All stakeholders should implement programming across settings*)
- While CBT is not effective alone, it can help the child understand ADHD, build a positive self esteem, and build social skills, and can help teachers and parent reframe their thinking from failure to success.
- All the Alex's in the world count on us to change a "faulty brain" into a "quick brain".

# In Closing...

---

- ADHD is the most common neurodevelopmental disorder in children and adolescents
- Treatment outcomes are best when medications are combined with education about ADHD, executive functioning interventions, behavioral therapy, medications, team approach to treatment, ***and education and involvement of family members***.
- Those that are treated do better in relationships, employment, and life style (i.e., functioning)
- Those that are not treated are at higher risks for low education, job loss, drug use, and relationship failures.
- Education and involvement of family members improves outcomes, and improves the self esteem of the child with ADHD.

# References

---

Barbaresi WJ, Colligan RC, Weaver AL, Voigt RG, Killian JM, Katusic SK. Mortality, ADHD, and psychosocial adversity in adults with childhood ADHD: a prospective study. *Pediatrics*. 2013 Apr;131(4):637-44. PMID: 23460687

Barkley, R. (2012). ADHD: Burnett Lecture.

Biederman, J., Petty, C. R., Fried, R., Doyle, A. E., Spencer, T., Seidman, L. J., et al. (2007). Stability of executive function deficits into young adult years: A prospective longitudinal follow-up study of grown up males with ADHD. *Acta Psychiatrica Scandinavica*, 116, 129–136.

CHADD. (2019). About ADHD. <https://chadd.org/about-adhd/general-prevalence/>

Cohrs, C. M., Shriver, M. D., Burke, R. V., & Allen, K. D. (2016). Evaluation of increasing antecedent specificity in goal statements on adherence to positive behavior-management strategies. *Journal of Applied Behavior Analysis*, 49(4), 768- 779.

Dodson, W. W. (2005). Pharmacotherapy of adult ADHD. *Journal of Clinical Psychology*, 61(5), 589–606. <https://doi-org.ezproxy.proxy.library.oregonstate.edu/10.1002/jclp.20122>

Drechsler, R., Brandeis, D., Foldenyi, M., Imhof, K., & Steinhausen, H.C. (2005). The course of neuropsychological functions in children with attention deficit hyperactivity disorder from late childhood to early adolescence. *Journal of Child Psychology and Psychiatry*, 46, 824–836.

# References

- Fleming, A., & McMahon, R. (2012). Developmental Context and Treatment Principles for ADHD Among College Students. *Clinical Child & Family Psychology Review*, 15(4), 303–329. <https://doi-org.ezproxy.proxy.library.oregonstate.edu/10.1007/s10567-012-0121-z>
- Gailliot, M. T., Baumeister, R. F., DeWall, C. N., Maner, J. K., Plant, E. A., Tice, D. M., et al. (2007). Self-control relies on glucose as a limited energy source: Willpower is more than a metaphor. *Journal of Personality and Social Psychology*, 92, 325–336.
- Halperin, J. M., Trampush, J. W., Miller, C. J., Marks, D. J., & Newcorn, J. H. (2008). Neuropsychological outcome in adolescents/young adults with childhood ADHD: profiles of persisters, remitters and controls. *Journal of Child Psychology & Psychiatry*, 49(9), 958–966. <https://doi-org.ezproxy.proxy.library.oregonstate.edu/10.1111/j.1469-7610.2008.01926.x>
- NIH. (2017). Attention-Deficit/Hyperactivity Disorder (ADHD). <https://www.nimh.nih.gov/health/statistics/attention-deficit-hyperactivity-disorder-adhd.shtml>
- Seidman, L.J. (2006). Neuropsychological functioning in people with ADHD across the lifespan. *Clinical Psychology Review*, 26, 466–485.
- UPMC. (2019). Treatment for ADHD in Children, Adolescents, and Adults. <https://www.upmc.com/services/behavioral-health/adhd-across-the-lifespan/treatment-of-adhd>
- Wigal, S. B. (2009). Efficacy and safety limitations of attention- deficit hyperactivity disorder pharmacotherapy in children and adults. *CNS Drugs*, 23(Suppl 1), 21–31.
- Xu, Guifeng et al. (August 2018). Twenty-Year Trends in Diagnosed Attention-Deficit/Hyperactivity Disorder Among US Children and Adolescents, 1997-2016. *JAMA Network Open*. 2018;1(4):e181471.



Thank you for attending Special Learning's  
**ADHD Webinar Series**

[ADHD Strategies: Family Training and Involvement \(LIVE 8/14/2019\)](#)

*Thank you to the wonderful Special Learning team members without whom our experience would be greatly diminished (or just plain disorganized!)*

- *Ann Beirne, BCBA, (ACE Coordinator and Moderator)*
- *Krystal Larsen, BCaBA, Director of Clinical Solutions (Moderator and Clinical Support)*
- *Michelle Capulong (Client Support Manager)*
- *Pia Agsao (Client Support)*
- *Sasho Gachev (Creative Director)*

*Please Reference this presentation as:*

Padgett Coehlo, D., Chung, K., Brown, R.T., & Marroquin, M. (2019, August). ADHD training webinar series. In R. Brown (Chair), *ADHD Management: Family Training and Involvement*. Symposium conducted at the Special Learning, Inc. CEU LIVE event, Virtual.