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Executive Functioning in AUTISM

The background of the slide is a teal-colored image featuring a close-up of a palm frond in the upper half and blades of grass in the lower half. A white rectangular border is centered on the slide, enclosing the text.

WHAT IS EXECUTIVE FUNCTIONING?

A photograph of two women in a room. On the left, a woman with long dark hair is seen from the back, looking towards the right. On the right, a woman with long dark hair is sitting in a chair, smiling and looking towards the left. The room has a white wall, a framed picture of colorful flowers, a potted cactus on a wooden stool, and a book titled 'DULAN'S TEXTBOOK OF Child and Adolescent PSYCHIATRY' on the stool.

TRUE OR FALSE

Individuals with autism often experience difficulties with executive functioning skills such as planning, flexible thinking, and impulse control, even if their cognitive abilities are average or above average.

LEARNING OBJECTIVES....

Understanding executive function challenges in autism

Recognizing executive function barriers and patterns

Practical strategies for improving organization,
planning, and time management

Supporting your child through executive function difficulties

Latest research findings and approaches



DOMAINS OF EXECUTIVE FUNCTIONING

01

Working memory

02

Cognitive flexibility

03

Inhibitory control

04

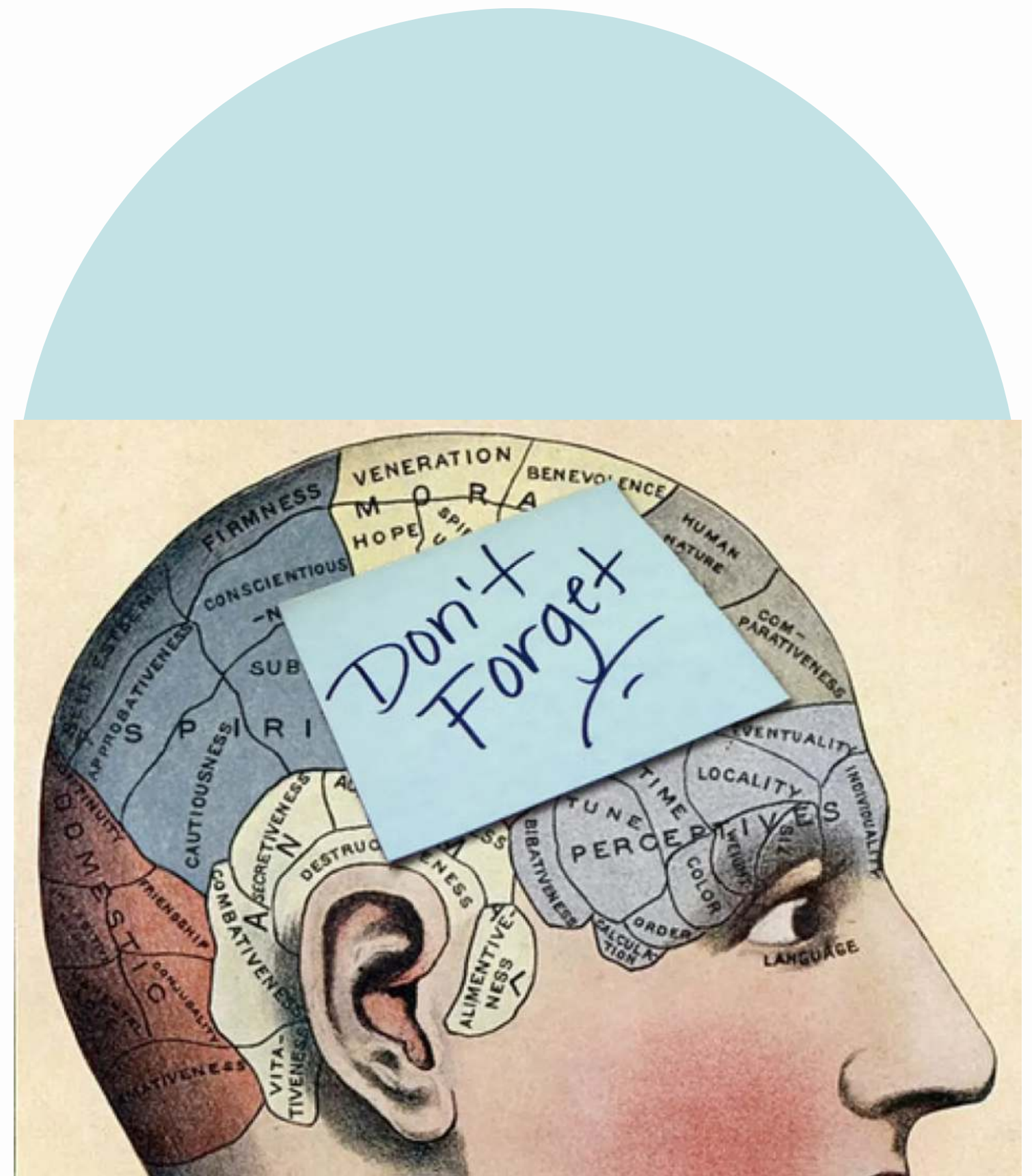
Emotional regulation

05

Task initiation/ Planning

Working Memory Challenges:

- Has trouble with tasks that have more than one step
- Forgetting instructions or multi-step directions
- Difficulty holding information while processing other tasks
- Struggles remembering materials needed for activities





Cognitive Flexibility Challenges:

- Becomes upset with new situations
- Strong resistance to changes in routine
- Difficulty shifting between activities or tasks
- Getting "stuck" on topics or activities
- Violations of expectations are distressing

Emotional Regulation Challenges:

- Overreacts to seemingly small problems
- Overwhelm with multiple demands
- Difficulty modulating emotional responses
- Emotional state impacts cognitive performance ("hot" executive functions)

Unique presentation in autism:

Uneven profiles - strengths in some areas, significant challenges in others

Context-dependent - may function well in preferred activities but struggle elsewhere

Co-existing with other autism traits - sensory sensitivities and social communication differences can compound executive function challenges

Context in Mental Health: EF=ER

- Emotional Regulation Challenges:
- Meltdowns when routines change
- Overwhelm with multiple demands
- Difficulty recovering from setbacks
- High frustration with challenging tasks

Difficulties with emotional regulation, such as intense emotional outbursts, can interfere with an individual's ability to focus and complete tasks, thereby impacting EF

Understanding the Impact on Mental Health:

- Executive function challenges predict mental health outcomes in autism
- Behavior regulation difficulties (inhibition, flexibility) strongly linked to anxiety
- Metacognitive challenges (working memory, planning) associated with depression
- Addressing executive function may improve co-occurring mental health conditions

LATEST RESEARCH AND CURRENT UNDERSTANDING

- Executive function challenges represent a core feature of autism, not secondary
- Development follows different trajectory compared to neurotypical peers
- Challenges often persist into adulthood but can improve with targeted support

Research-Based Programs:

- "Unstuck and On Target" curriculum (children)
- "Flexible Futures" program (transition-age youth)
- Cognitive-behavioral approaches for executive function

“Researchers would eventually discover that autistic people stim to reduce anxiety—and also simply because it feels good. In fact, harmless forms of self-stimulation (like flapping and fidgeting) may facilitate learning by freeing up executive-functioning resources in the brain that would otherwise be devoted to suppressing them.”

— Steve Silberman, NeuroTribes: The Legacy of Autism and the Future of Neurodiversity.

Research on "Hot" vs. "Cold" Executive Functions:

"Hot" emotional regulation strongly predicts subjective quality of life:

- Physical health satisfaction
- Psychological well-being
- Social relationship quality
- Autism-specific quality of life

"Cold" executive functions (inhibition and flexibility) predict:

- Daily living skills
- Independence in everyday activities



DIFFERENTIAL INTERVENTION APPROACHES:

- Target emotional regulation when quality of life is primary concern
- Target inhibition/flexibility when daily living skills are priority
- Consider co-occurring conditions - ADHD (inhibition), anxiety (flexibility)
- Develop age-appropriate interventions - most research focused on youth
- Acknowledge increasing demands in adulthood for metacognitive skills

SUPPORTING YOUR CHILD

Normalize challenges - validate difficulties without judgment

Problem-solving partnership - collaborate on solutions

Reduced demands during high-stress periods

Emotion regulation strategies - particularly important for quality of life outcomes

Communication

- Clear, concrete language - avoid ambiguity or abstract concepts
- Visual supports - pair verbal instructions with visual cues
- Written reminders - provide reference points for expectations
- Talking through problems - verbalize steps to develop inner monologue skills

School Context

- Consistent systems across environments
- Regular communication with educational team
- Accommodation planning - address specific challenges
- Developmental considerations - needs change from childhood to adulthood

ENVIRONMENTAL SUPPORTS

- Visual organization systems - color coding, labels, transparent containers
- Designated spaces - clear zones for different activities and materials
- Reduce visual clutter - minimize distractions in work environments
- OT CAN BE VERY HELPFUL FOR SUGGESTIONS HERE



Our therapeutic goal must be to teach the person how to bear their difficulties. Not to eliminate them for him, but to train the person to cope with special challenges with special strategies; to make the person aware not that they are ill, but that they are responsible for their lives.”

— Steve Silberman, NeuroTribes: The Legacy of Autism and the Future of Neurodiversity.



THANK YOU!

Arielle Rubin M.D.