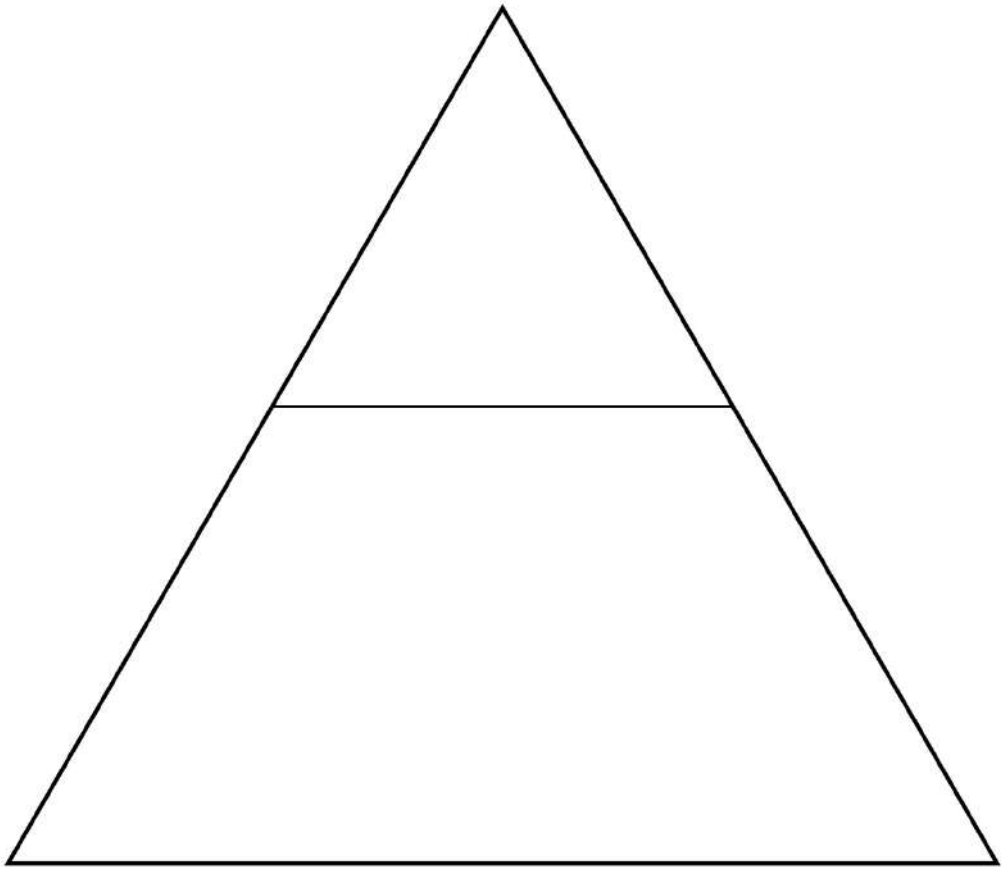


The Trauma Trap

ADHD Developmental Delay

Understanding the 30% Gap in Executive Function Development

30%

Developmental Delay

Research shows that individuals with ADHD experience approximately a 30% delay in the development of executive functions compared to neurotypical peers. This means a person's emotional and executive function maturity may be significantly younger than their chronological age.

What Does This Look Like?

Age 10

10 years → 7 years

A 10-year-old with ADHD may have the executive function capacity of a 7-year-old, affecting impulse control, emotional regulation, and planning abilities.

Age 20

20 years → 14 years

A 20-year-old may function emotionally and organizationally more like a 14-year-old, impacting independent living skills and relationship management.

Age 30

30 years → 21 years

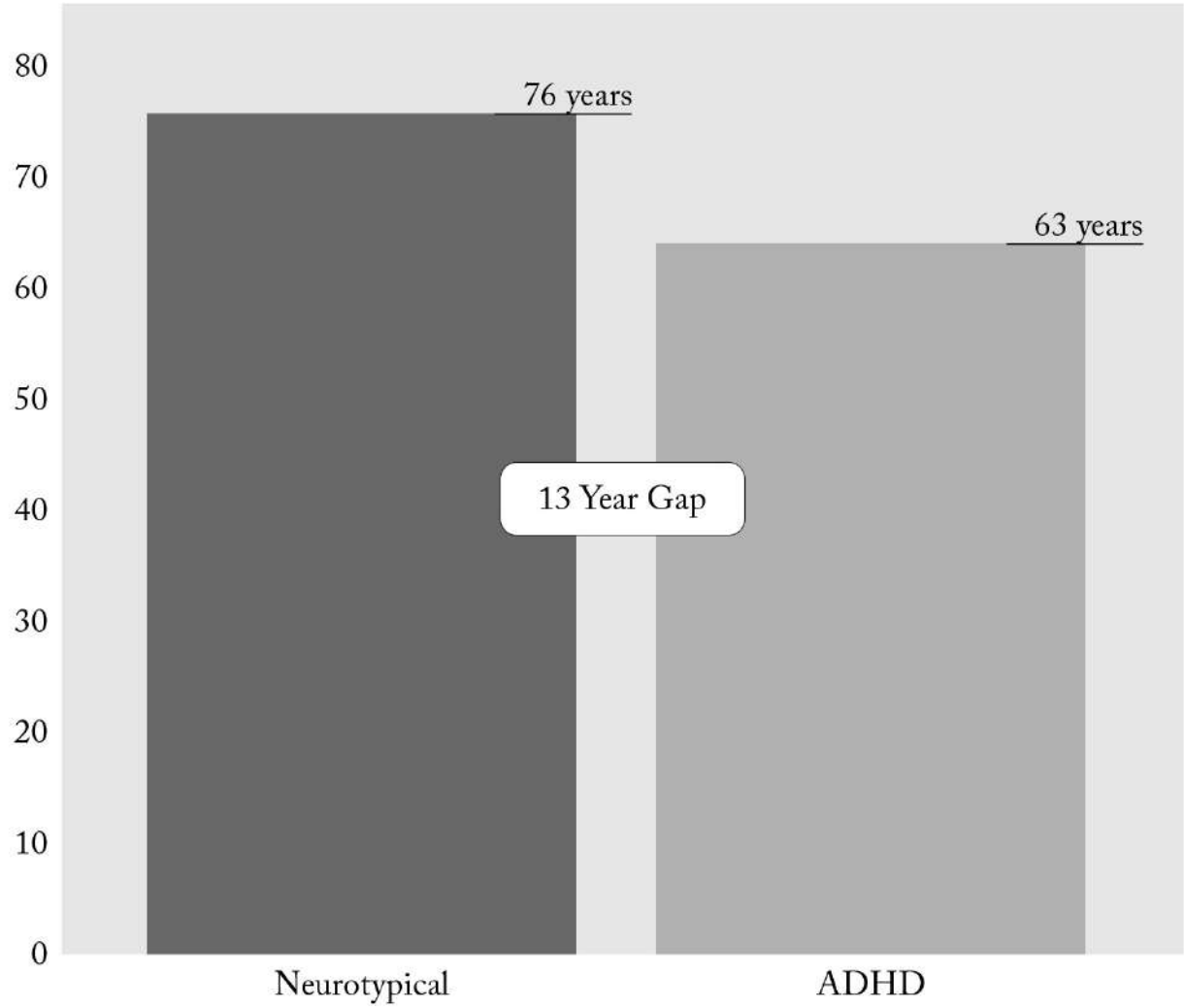
A 30-year-old might have executive function development closer to a 21-year-old, affecting career progression and long-term planning.

Key Understanding Points

1. **Not a deficit in intelligence:** This delay affects executive functions (planning, emotional regulation, impulse control: not cognitive ability or intelligence.
2. **Creates unrealistic expections:** Society expects age-appropriate behavior, but ADHD brains are developmentally younger in key areas, leading to chronic feelings of failure.
3. **Explains childhood trauma:** Many with ADHD were punished for behaviors that were developmentally appropriate for their executive function age, not their chronological age.
4. **Refames personal history:** Understanind this delay can help individuals recontextualize their struggles as neurobiological differences rather than personal failures.

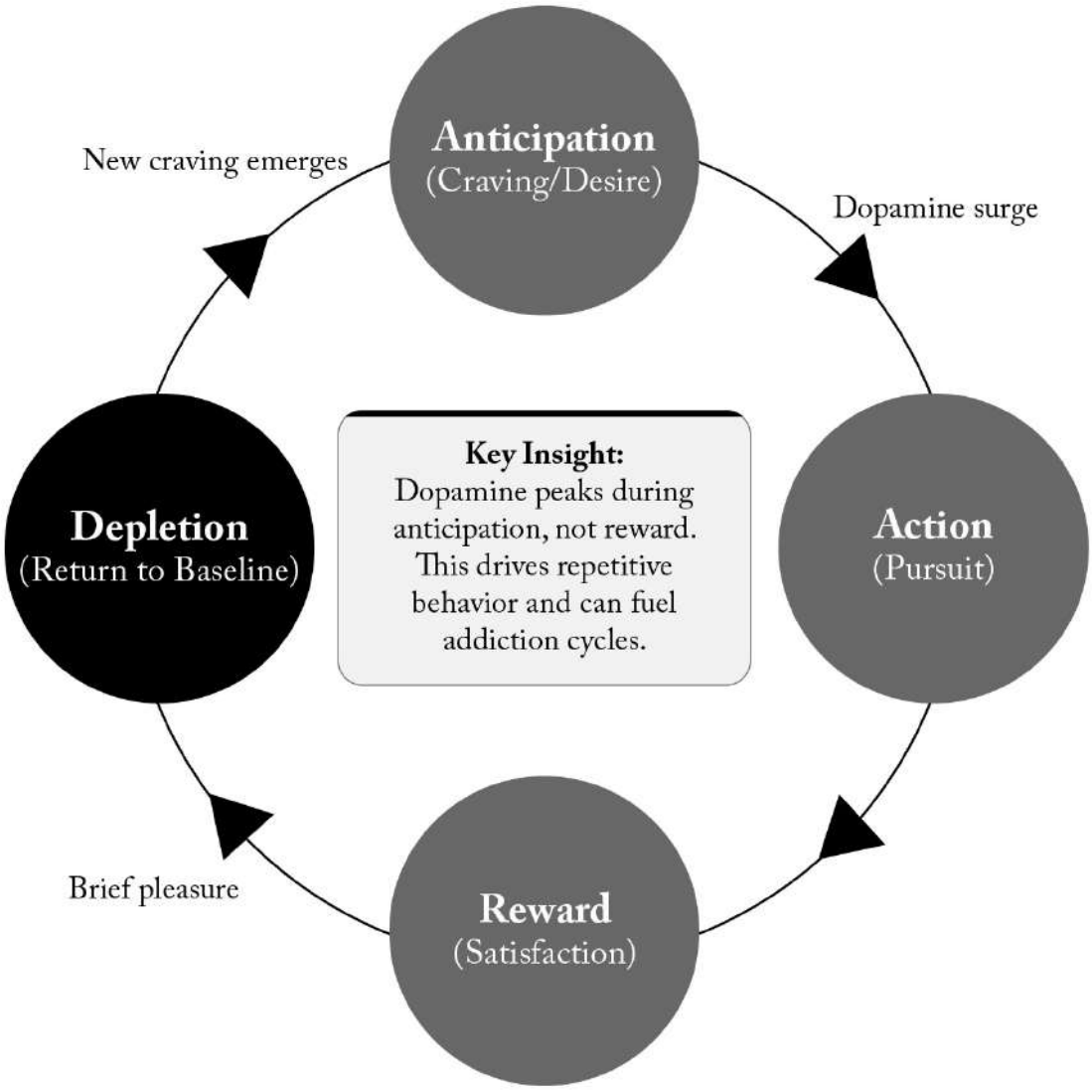
Based on research by Russell Barkley and others in the field of ADHD executive function development

Mortality Gap:
ADHD vs. Neurotypical Population



Source: Research shows individual siwth ADHD have approximately 13 years lower life expectancy

The Dopamine Cycle



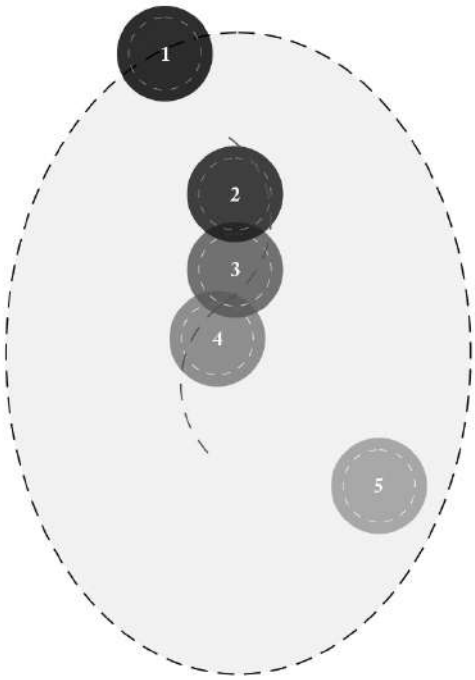
Understanding the ADHD Brain

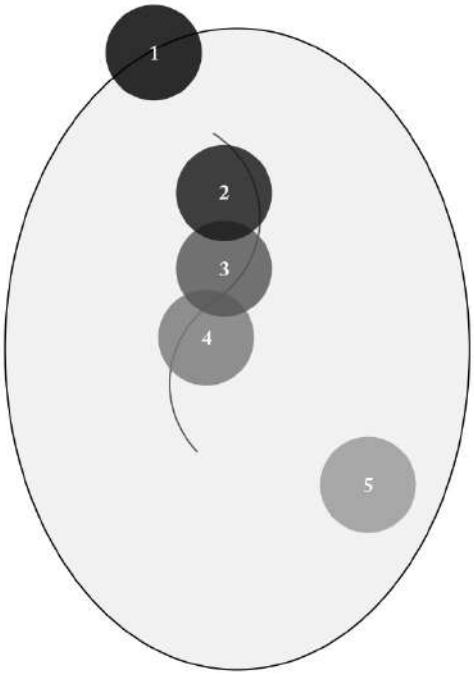
ADHD Brain

Key Characteristics:

- Reduced volume in multiple regions
- Altered dopamine pathways
- Decreased connectivity between brain regions

Dashed lines indicate reduced neural connectivity. Smaller circles show decreased volume.





Neurotypical Brain

Key Characteristics:

- Typical volume and structure
- Balanced dopamine regulation
- Strong connectivity between brain regions

Affected Brain Regions

1. Prefrontal Cortex
2. Anterior Cingulate Cortex
3. Corpus Callosum
4. Basal Ganglia
5. Cerebellum

Size Differences

ADHD brains show 3-5% smaller volume overall, with specific regions affected more significantly

Dopamine Dysregulation

Altered dopamine signaling affects motivation, reward processing, and attention control

Connectivity Patterns

Reduced connectivity between regions impacts information processing and executive function