

Cognitive and Behavioural Changes after ABI

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What is cognition?



What is Behaviour?

The Relationship between Cognition and Behaviour

Cognition



Behaviour

Something old...Something new

Integrating the Self after ABI

- Life goes along with, warts and all!
- A serious brain injury happens
- What is the extent of the injury?
- What is injured? What is spared?
- What recovers?
 - How is the brain reorganized?
- How much improvement?
- How does the old person integrate with the new...
Who am I now?

Cognition from the Neuropsychologist's Lens



- Premorbid History
- Orientation
- Verbal abilities
- Visual-spatial abilities
- Speed of information processing
- Attention/concentration
- Learning and memory (auditory, visual, immediate, delayed)
- Executive Functions (goal directed behaviour, judgment, awareness, initiation, follow-through, planning, problem-solving)

Attention and Information Processing

- ⦿ Speed of processing
- ⦿ Overload
- ⦿ Poor encoding efficiency
- ⦿ Poor storage strategies
- ⦿ Impaired retrieval

Learning and Memory

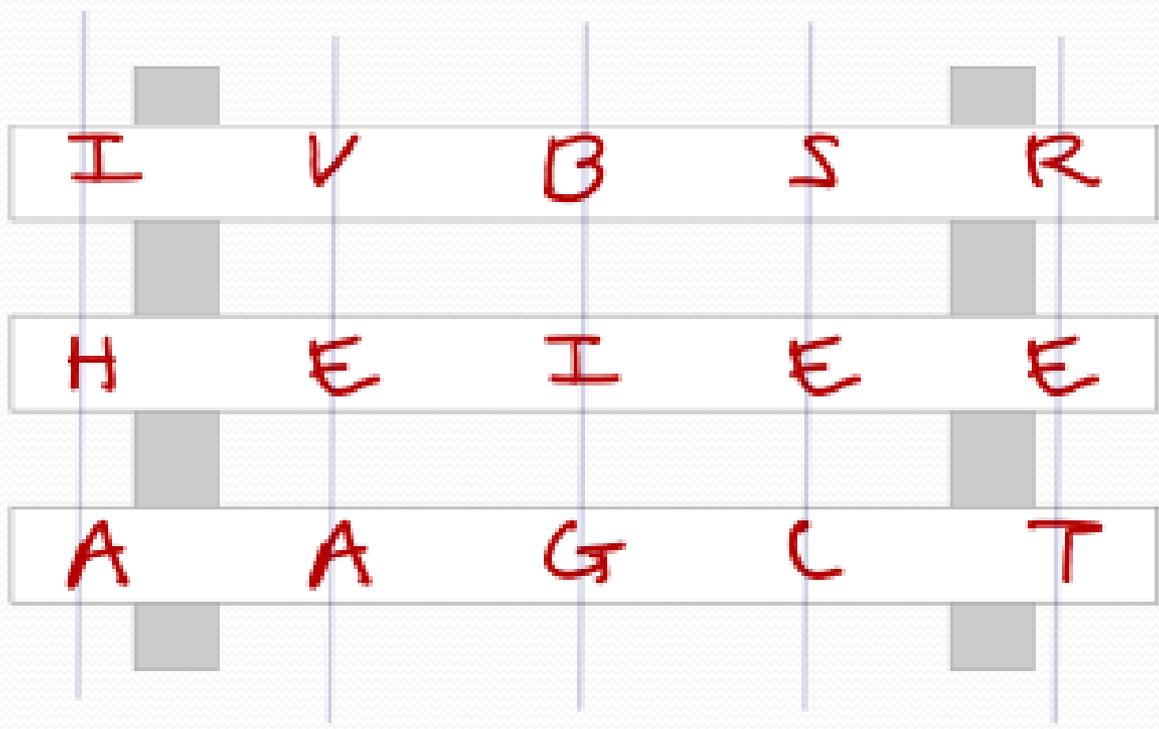
- Making information meaningful
- Making connections
- Using Repetition
- Filing information in a useful way
- Retrieving information when it's needed

I V B S R

H E I E E

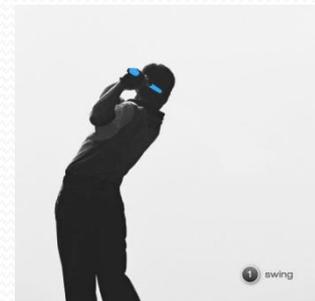
A A G C T

I HAVE A BIG SECRET



Executive Functioning : Initiation and problem-solving

- Poor ability to get going
 - Starter burnout/apathy
- Reduced ability to come up with alternate solutions when the first one doesn't work;
- Poor follow-through
 - A good start, but many unfinished projects



Judgment, Insight and Self-awareness

- Anosagnosia
- Social Judgment
- What is my comparator now?

Sleep and Energy after ABI

- Cognitive reorganization with less cognitive efficiency
- More deliberate and effortful functioning
- Energy is spent on cognitive and physical activities
- Need to replenish
- As energy dwindles, effects mood

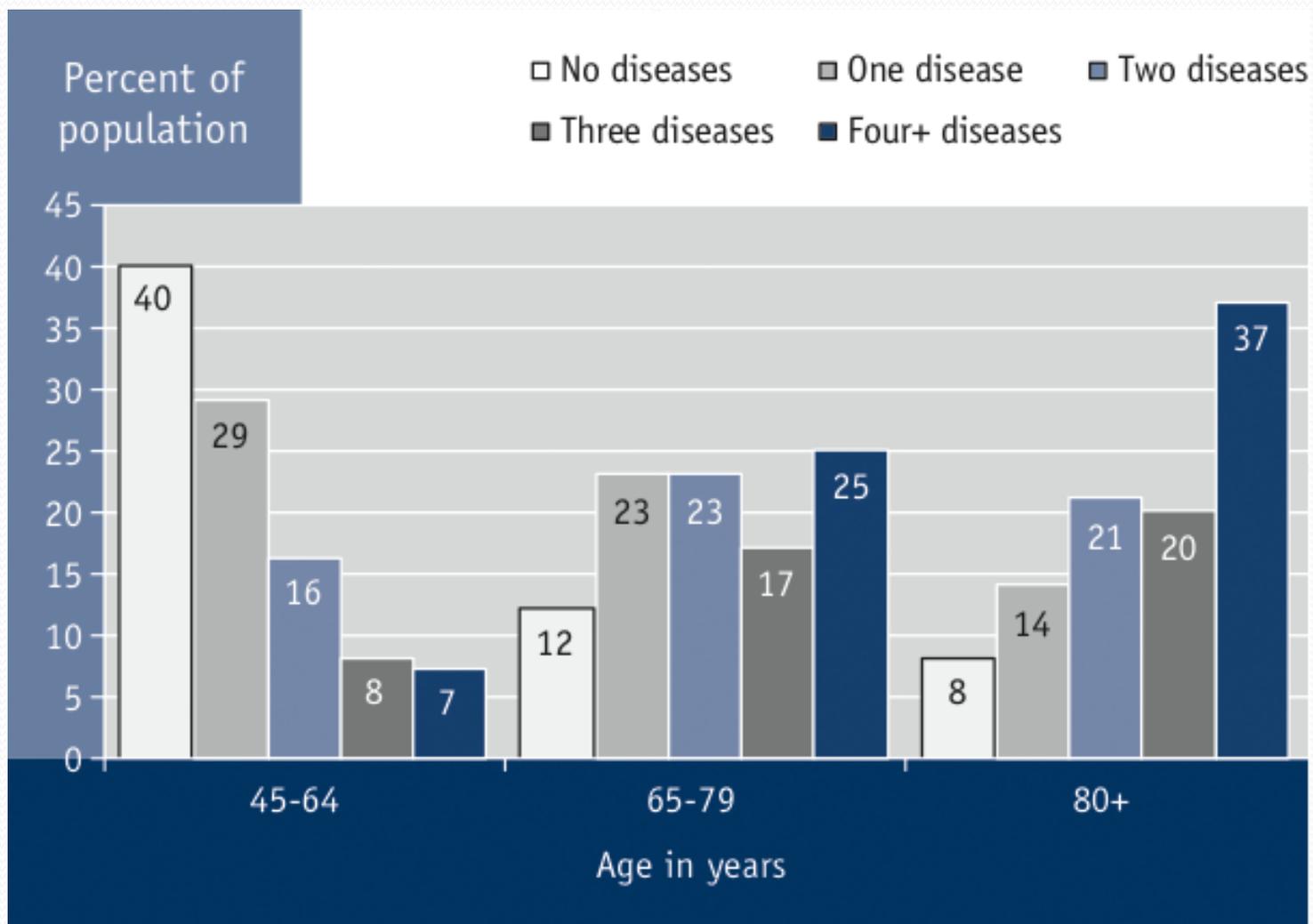
Aging with a brain injury

- More people survive severe brain injuries as medical technology advances
- A pattern that has been stable for years may change with aging



Chronic illness and aging

Proportion of Population with one or more Chronic Diseases, Canada 2009

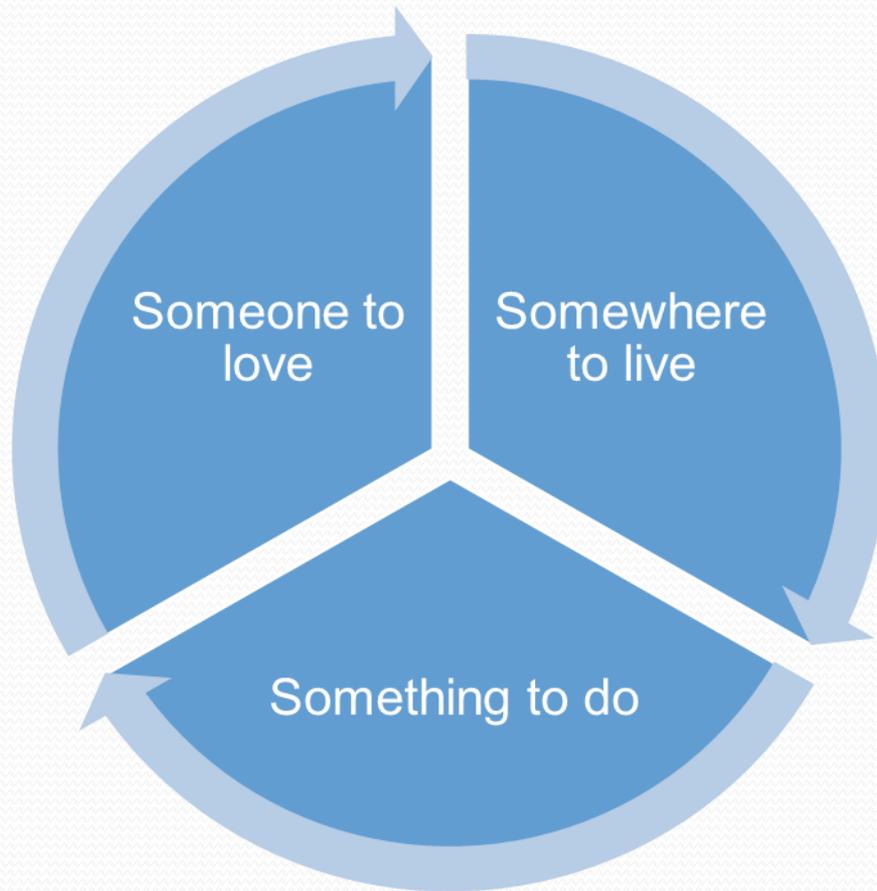


Behavioural Change after Brain Injury

○ Common Drivers

- Fatigue and Irritability
- Pain
- Illness (infection, flu, etc.)
- Grieving the old identity
- Boredom
- Inability to meet demands of a situation
- Depression / apathy
- Change (schedule, supports, abilities, surroundings, etc.)

The three spheres to consider





Thank you.