

Successful Ageing in Australia

Memory changes in normal ageing

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The myth

- Ageing and memory loss go hand in hand. Any changes in memory mean you are getting dementia

The Reality

- Memory does change with age, but most people don't experience memory loss that interferes with their ability to live a normal life

Normal memory ageing

- Distinguish between pathological and normal (maturational) memory ageing
- Brain is an organ like heart and kidneys
- Changes in blood supply to brain, speed of mental operations, richness of interconnections between nerve cells

Basic steps in memory

- Registration – paying attention
- Retention – moving new information into long-term store
- Retrieval – getting the material out again
- Forgetting can be due to a failure at any one of these phases

Typical changes with age

- Focus – difficulty focusing on more than one thing at a time
- Energy – increased effort will be required to learn new things
- Time – take longer to recall information

Model of memory subsystems

A hierarchy:

Memory – Short term and long term

- Short term – passive and working memory
- Long term – Declarative and procedural
- Declarative – semantic and episodic

Short-term Memory

- Holding information in consciousness
eg telephone numbers
- Capacity is 7 plus or minus 2
- No age difference
- Working memory
- Age differences

Procedural Memory

- Memory for skills eg riding a bike
- No age effect
- New learning is slower
- Unconscious

Semantic memory

- General knowledge of concepts
- Vocabulary improves with age
- Retrieving words and names gets worse with age
- Tip of tongue experience is more common

Episodic Memory

- Autobiographical
- Lists
- Source monitoring, false memory, prospective memory

Remote Memories

- Older adults give preponderance of early memories. These may be emotionally significant, overlearned & rehearsed
- Using cue words - people recall events from teens and 20s
- Often can't verify facts
- Memory for TV programs
- Better recall for recent events
- Some loss of detail

Prospective memory

- Remembering what to do and when to do it
- Time-based prospective memory gets worse – eg take the pills at 3 o'clock
- Action-based prospective memory doesn't – eg take the pills at dinner time

Episodic

- Source monitoring – remembering where you heard something or who said it
- Problems in source monitoring increase with age
- False memories – eyewitness testimony: older adults were more likely to be misled by false post-event information

Thoughts and feelings

- Your thoughts and feelings can interfere with memory
- Negative self statements – lower expectations – less likely to try or to use strategies
- Overgeneralising eg attributions that young and older people use for memory failure

Internal memory aids

- Imagery – using imagination
- Association – linking to something you know
- Organisation – eg categorising
- They help you retain the information and provide cues to help you retrieve it

External memory Aids

- Writing notes, diaries
- Environmental restructuring – eg having a spot for keys
- Object cues – eg lunch bag on fridge
- Mnemonics – eg method of loci, ABCs
- Enriched context

Health and exercise

- Ill health and chronic conditions – eg hypertension & diabetes
- B12 and folic acid deficiency
- Poor health habits
- Smoking, alcohol abuse
- Leading a sedentary lifestyle
- Lack of mental exercise

Why don't memory changes impact on every day functioning?

- In most everyday activities people can operate at their own speed, they can use memory aids, develop strategies and focus resources on what is most interesting or relevant
- Most older people are only mildly inconvenienced by memory changes