Adjusting for the Cognitive Effects of Normal Aging in the Work Place

Janet Leathem
Massey University – Wellington
New Zealand
Demographics

• Population of older individuals (60+) rose from 205 million in 1950 to 606 million in 2000 (UN, 2002). Projected to reach the 2 billion mark by 2050.

• New Zealand, 2001 (12% of the population) aged 65 or over (Statistics New Zealand [SNZ], 2009). Projected 25% of population by 2026.
Demographics

Percent of Population Aged 65 & Over: History and UN Projection

Source: UN (2005)
Demographics: Workforce

- Number of people 65+ in workforce
  - 1991 (1/16)
  - 2012 (1/5)
  - 2020 (1/3)
  - 2036 (9-15% of labour force)
  - 2061 (10-18% of labour force)

- Largest growth between 2011 and 2031
Demographics: Workforce
Cognitive Effects of Normal Aging

• Better or same
  – Verbal & Language skills
  – General knowledge, Vocabulary
  – Wisdom

• Lower
  – Information processing speed
  – Working memory
  – Divided/selective attention
  – Memory (new material)
Normal Aging: Cognition

(Willis & Schaie, 1999)
Normal Aging: Cognition

(Willis & Schaie, 1999)
Summary

• People are living longer
• Increasingly higher % of older adults in the general population.
• Choosing to remain in workforce longer
• Age related decline in some areas of cognition
  – Attention
  – Information processing Speed
  – Working memory
  – Executive function
  – Motor speed
• Pattern of cognitive strengths & weaknesses different than when younger
• Work performance concerns
Sally:
High school principal; 63 years; living alone

- Lupus Erythematousus 40 years
  - Cardiac & Urinary tract infections
- Steroids use increasing 35 years
  - Hip replacements
Sally:
High school principal; 3 adult children; living alone

- Lupus Erythematosus 40 years
  - Cardiac & Urinary tract infections
- Steroids use increasing 35 years
  - Hip replacements
Sally:
High school principal; 3 adult children; living alone

• Problems
  – Leaving important things behind
    • *Forgot documents when flying to another city for meeting*
  – Forgetting why went somewhere
    • *Standing in room wondering what she went there to do*
  – Making errors
    • *Spelling errors in emails and documents*
  – Names
    • *Thinking quickly of people's names when she meets them again*
  – Forgetting to do things
    • *Wondering whether she has taken medication*
  – Near accidents
    • *Went through a red light*
    • *Failed to check for other traffic before moving off*
  – Depressed
    • *About the future*
Sally:
High school principal; 3 adult children; living alone

• Problems
  – Leaving important things behind
    • Forgot documents when flying to another city for meeting

• Information processing speed low average
• Motor speed above average
Sally:
High school principal; 3 adult children; living alone

• Problems
  – Leaving important things behind
    • Forgot documents when flying to another city for meeting

• Test results
  – Information processing speed low average
  – Motor speed above average

• Moving faster than she is giving herself time to think
Sally:
High school principal; 3 adult children; living alone

• Problems
  – Leaving important things behind
    • *Forgot documents when flying to another city for meeting*
  – Forgetting why went somewhere
    • *Standing in room wondering what she went there to do*
  – Making errors
    • *Spelling errors in emails and documents*
  – Names
    • *Thinking quickly of peoples names when she meets them again*
  – Forgetting to do things
    • *Wondering whether she has taken medication*
  – Near accidents
    • *Went through a red light*
    • *Failed to check for other traffic before moving off*
  – Depressed
    • *About the future*
Sally:
High school principal; 3 adult children; living alone

• Problems
  – Leaving important things behind
    • Forgot documents when flying to another city for meeting
  – Forgetting why went somewhere
    • Standing in room wondering what she went there to do

• Normal Aging
  – Attention
  – Vulnerability to distraction
  – Information processing speed
  – Worrying – more distraction
Sally:
High school principal; 3 adult children; living alone

• Problems
  – Leaving important things behind
    • *Forgot documents when flying to another city for meeting*
  – Forgetting why went somewhere
    • *Standing in room wondering what she went there to do*

• Normal Aging
  – Attention
  – Vulnerability to distraction
  – Information processing speed
  – Worrying – more distraction

Doesn’t attend properly at outset, so doesn’t learn, distraction, when can’t remember doesn’t give self time to think, then immediately worries about future, leading to more distraction.
Sally:
High school principal; 3 adult children; living alone

• Problems
  – Leaving important things behind
    • *Forgot documents when flying to another city for meeting*
  – Forgetting why went somewhere
    • *Standing in room wondering what she went there to do*
  – Making errors
    • *Spelling errors in emails and document*
  – Names
    • *Thinking quickly of peoples names when she meets them again*
  – Forgetting to do things
    • *Wondering whether she has taken medication*
  – Near accidents
    • *Went through a red light*
    • *Failed to check for other traffic before moving off*
  – Depressed
    • *About the future*
Sally:
High school principal; 3 adult children; living alone

• Problems
  – Leaving important things behind
    • *Forgot documents when flying to another city for meeting*
  – Forgetting why went somewhere
    • *Standing in room wondering what she went there to do*
  – Names
    • *Thinking quickly of peoples names when she meets them again*
  – Forgetting to do things
    • *Wondering whether she has taken medication*
  – Making errors
    • *Spelling errors in emails and documents*
  – Near accidents
    • *Went through a red light*
    • *Failed to check for other traffic before moving off*
  – Depressed
    • *About the future*
Bottom Line

• It’s no wonder that older adults experience difficulty

• There is no reason for them to leave work if:
  – Awareness of effects of normal aging on cognition and adjust for them
  – Allow time
  – Attend
  – Avoid distraction-one thing at a time
  – Organise, plan & simplify to assist learning
  – Don’t stress
Adjusting for the cognitive effects of normal aging in the work place

Leathem, JM