Burns across the ages: The Issue of dementia

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Dementia is THE Public Health issue of the 21st Century

2019 World Alzheimer Report
(Alzheimer’s Disease International)
• World population rapidly ageing
• Estimated 50 million living with dementia worldwide currently.
• 152 million by 2050
• Someone develops dementia every three seconds
• current annual cost estimated at US $1trillion, set to double by 2030

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Impact of dementia in Australia

- 2018: ≈ 425,416 people living with dementia
- 2050: ≈ 942,624 people living with dementia
- 2nd leading cause of death overall BUT leading cause for women
- Cost to Australia $15 billion
- ≈ 1 million people care for a relative or friend with dementia
Prevalence of dementia by age

Australia: Life Expectancy, 1870-2009

Overall risk approx 6.6% over age 65 (95% CI 5.9-7.3)

Source – MRC-Cognitive Function and Aging Study
What is Dementia

A progressive, global, life-limiting condition that involves generalised brain degeneration that effects people in different ways and has many different forms.
What is Dementia

People **die** from dementia due to loss of brain function, which impacts body functions necessary to sustain life.
What is Dementia

Dementia is an umbrella term that describes a collection of symptoms that are caused by disorders affecting the brain. It is not one specific disease. Dementia affects thinking, behaviour and the ability to perform every day tasks, and brain function is affected enough to interfere with the person’s normal social or working life. The most common type of dementia is Alzheimer’s disease.

**Alzheimer’s Disease**
Alzheimer’s disease is the most common type of dementia accounting for approximately 40-70% of all dementias.

**Vascular Dementias**
Vascular dementia is the second most common type of dementia, accounting for approximately 15-25% of all dementias.

**Lewy Body Dementia**
Lewy Body dementia accounts for approximately 2-20% of all dementias.

**Fronto Temporal Dementias**
Fronto Temporal Dementia accounts for approximately 2-4% of all dementia.

**Other Dementias**
Include dementia associated with Parkinson’s disease, Huntington’s disease, head trauma, human immunodeficiency virus (HIV), alcohol related dementia, Crutzfeld-Jakob Disease, corticobasal degeneration and progressive supranuclear palsy.

Kate Swaffer © 2016
Stages of Dementia

Symptom Progression in AD

- **Stage 1**
  - Forgetfulness
  - Short-term memory loss
  - Repetitive questions

- **Stage 2**
  - Hobbies, interests lost
  - Impaired instrumental functions
  - Anomia
  - Progression of cognitive deficits
  - Aphasia
  - Dysexecutive syndrome
  - Impaired BADL
  - Transitions in care

- **Stage 3**
  - Agitation
  - Altered sleep patterns
  - Total dependence: dressing, feeding, bathing

BADL = basic activities of daily living.
Modified from Feldman et al. *Clinical Diagnosis and Management of Alzheimer's Disease. 1st ed. 1998*
Domains of Dementia

1. Cognitive decline
2. Functional decline
3. Psychiatric symptoms
4. Behaviour changes
5. Physical decline
Stages and Domains of Alzheimer’s Dementia

- Stage 1: Cognition
- Stage 2: Function
- Stage 3: Physical

MMSE Score over Years

- Psychiatric
- Behaviour Change
What’s the problem with dementia?

Dementia is complex:

• Under diagnosed
• Poorly understood
• Not just one person’s disease
• A social and medical issue
• Has a variable trajectory
• Is a terminal illness
Attitudes to Dementia

World Alzheimer Report 2019

• 35% of carers globally have hidden the diagnosis of dementia of a family member

• 62% of healthcare providers worldwide think that dementia is part of normal ageing

• 40% of the general public think doctors and nurses ignore people with dementia
Older people are disproportionately at risk of burns
• 13% of all adult patients (n=331) were over the age of 65
• Most common cause of burn injuries was a scald - 42 %
• 81 % of older adults sustained burn injuries in the home
• Kitchen most common location (32 %)
• Spend longer in hospital than young and middle-aged - median length of stay 9 days
• 70% went to theatre for a surgical procedure, & 76% received a skin graft
Burns and Dementia

Burns Registry of Australia and NZ 9th Annual Report

No mention of dementia!

Alden et al (2005) report that the role of dementia in elderly burn patients has not been studied in depth.

• Burn injuries in this patient population can be severe

• Mortality rate was 25%, almost double that of the non dementia group (13.8%).
Harvey et al (2015) report on a linked burn-related hospital and death records:

- People with dementia had 60% increased risk of hospitalisation compared to people without.
- Burns in people with dementia were more severe than for people without.
- Dementia was independently associated with increased LOS.
- People with dementia more likely to be burnt by hot tap water and ignition of clothing or nightwear than those without.
Harvey et al (2015) conclude:

Burns in people with dementia are significant injuries, which have not decreased over the past ten years despite prevention efforts to reduce burns in older people.
Why aren’t we thinking about dementia?

- Health systems are not well oriented towards quality dementia care.
- Very little dementia content in health professional courses, and workforce training can be limited.
- Wicking Centre research showed dementia knowledge deficiencies in aged care workers, nurses, doctors and family carers.
- Limited educational resources that provide information in a systematic, evidence-based fashion.

Need for an educational insurgency to address knowledge deficits
Module 1 – The Brain
- Normal Brain Anatomy
- Normal Brain Function
- Pathology of Dementia
- Future Directions of Research

Module 2 – The Diseases
- How is dementia different to normal ageing?
- Risk Factors
- Early Warning Signs
- Diagnosis
- Dementia Symptoms
- Medical Management

Module 3 – The Person
- Dementia Progression and Staging
- Living with Dementia
- Dementia Palliation
- Behaviours in Dementia
- Dementia Design
- Dementia-Friendly Communities
- Strategies and Therapies
In 2019 212,999 enrollees (average ~ 39% completion)