# THE EFFECTS OF AN INTEGRATED COGNITIVE & SENSORY PROGRAM AND PEOPLE WITH DEMENTIA IN A RESIDENTIAL AGED CARE SETTING: A PILOT STUDY

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# DEMENTIA IN RACF: THE PERSON

| Impacts | Needs |
| --- | --- |
| Changes:<br>• Physical<br>• **Cognitive**<br>• **Sensory**<br>• **Psychological, Emotional**<br>• Social, Spiritual<br><br>Dependence<br><br>Participation decline | To be understood as their abilities change<br><br>To be understood as their triggers become evident<br><br>To maintain as much control and participation in their daily lives as possible |

# BEHAVIOURAL & PSYCHOLOGICAL SYMPTOMS OF DEMENTIA - BPSD

Behavioural expressions, usually indicators or signs of distress involving:

- changes in perception and thinking
- altered moods
- communication problems
- difficulties using coping skills which, in the past, helped the person to cope

| | |
|---|---|
| Delusions | Agitation / aggression |
| Hallucinations | Depression / dysphoria |
| Anxiety | Elation / euphoria |
| Apathy / indifference | Disinhibition |
| Irritability / lability | Aberrant motor behaviour |
| Sleep & night time behaviour disorder | Appetite / eating changes |

Neuropsychiatric Inventory – Nursing Home Version. Jeffrey L. Cummings 2009

# TRAUMA SURVIVORS

# SYMPTOMS OF TRAUMA

Easily startled, angry

Distrusting, hoarding

Flashbacks, avoidance

Depression, anxiety, hypersensitive

Reduced interest, isolation

Overeating, anorexia

# ATTACHMENT & CHILDHOOD TRAUMA

| Type | Caregiver (CG) Behaviours | Child Behaviours | Adult traits |
|---|---|---|---|
| Secure 60-70% ? | - Reacts quickly and positively to child's needs<br>- Responsive to child's needs | - Distressed when CG leaves<br>- Happy when CG returns<br>- Seeks comfort from CG when scared/sad | - Able to regulate emotional, cognitive and social energy and info.<br>- Develops healthy relationships, self-esteem, shares feelings, uses attachment behaviour when in need of support |
| Insecure-ambivalent 10% ? | - Responds to child inconsistently<br>- Unpredictable , angry or helpless | - Distressed when CG leaves<br>- Not comforted by CG return | - Highly anxious, insecure, controlling, blaming,<br>- Reluctant to become close to others, constant worry that friends/family/partners don't truly care/love,<br>- Fear abandonment, "cling" even when no threat present |

# ATTACHMENT & CHILDHOOD TRAUMA

| Type | Caregiver (CG) Behaviours | Child Behaviours | Adult traits |
|---|---|---|---|
| Insecure-avoidant 10-20% ? | - Unresponsive, uncaring<br>- Dismissive<br>- Doesn't meet the needs of the child | - No distress when CG leaves<br>- Doesn't acknowledge return of CG<br>- Doesn't seek or make contact with CG | - Emotionally distant, anxious, mistrusting, problems maintaining intimacy, controlling, hard to connect with, unwilling/unable to share feelings/thoughts appropriately<br>- critical, rigid, intolerant, maintain emotional distance under stress |
| Insecure-disorganised 10% ? | - Abusive or neglectful<br>- Responds in frightening or frightened ways | - Often appears dazed, confused or apprehensive in presence of CG<br>- Depressed, angry, not responsive to non-verbal communication like others can.<br>- "Betrayal trauma" | - Chaotic, explosive, insensitive, abusive<br>- Untrusting even while craving security |

# IMPLICATIONS IN RESIDENTIAL CARE

- Unwilling separation, loss and disruption to attachment bonds
- Attachment behaviours, eg parent fixation
- Bereavement → behaviours?
- Complicated grief symptoms:
  - Chronic, disruptive yearning
  - Detachment
  - Numbness
  - Despair
  - Social dysfunction

"Attachment behaviour…a 'normal' response in times of extreme distress, illness and loss…

more marked in the presence of cognitive impairment where there is reduced ability to adequately express (and self-regulate) emotion"

Vries & McChrystal 2010

# TRANSGENERATIONAL TRAUMA

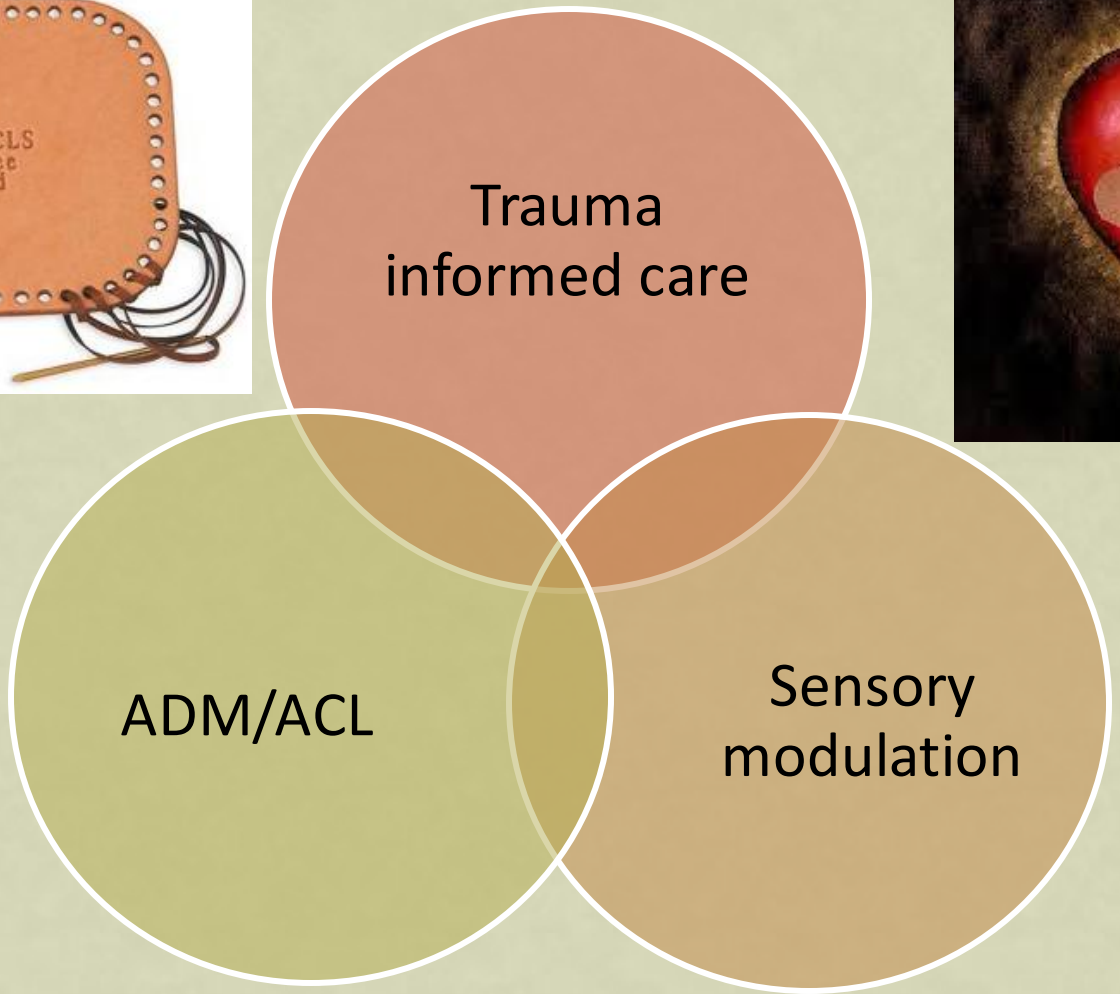
…trauma that is transferred from the first generation of survivors to the second and further generations of children through complex post-traumatic stress disorder mechanisms.

| Rachel<br>1925-current | Shirley (daughter)<br>1950-current | Jodie (granddaughter)<br>1982 - current |
|---|---|---|
| War | Discrimination | Discrimination |
| Discrimination | Constant exposure to trauma through re-telling of stories | Constant exposure to trauma through re-telling of stories |
| Persecution | Immigration | Feeling unsafe in the world |
| Forced displacement | World is threatening/unsafe | Neurotic, over- protective parents |
| Deportation | No extended family, no experience of ageing process | Parents perceived as cold and distant |
| Systemic trauma | Loss of family/friends | Need to "please" parents |
| Loss of home, possessions | Witness to violence | Emotional neglect by parent |
| Death camps | Systemic trauma | Domestic violence |
| Loss of family/friends | Domestic violence | Rebellion |
| Transit camps | Anxiety about hunger and disease | Alcohol/drug abuse |
| Immigration | Overly controlled by parents | Relationship breakdown/loss |
| Poverty/deprivation | Emotionally very attached to parents OR emotionally distant | Systemic trauma |
| | Overwhelming sense of guilt responsibility | |

# DEMENTIA IN RACF: CARE STAFF

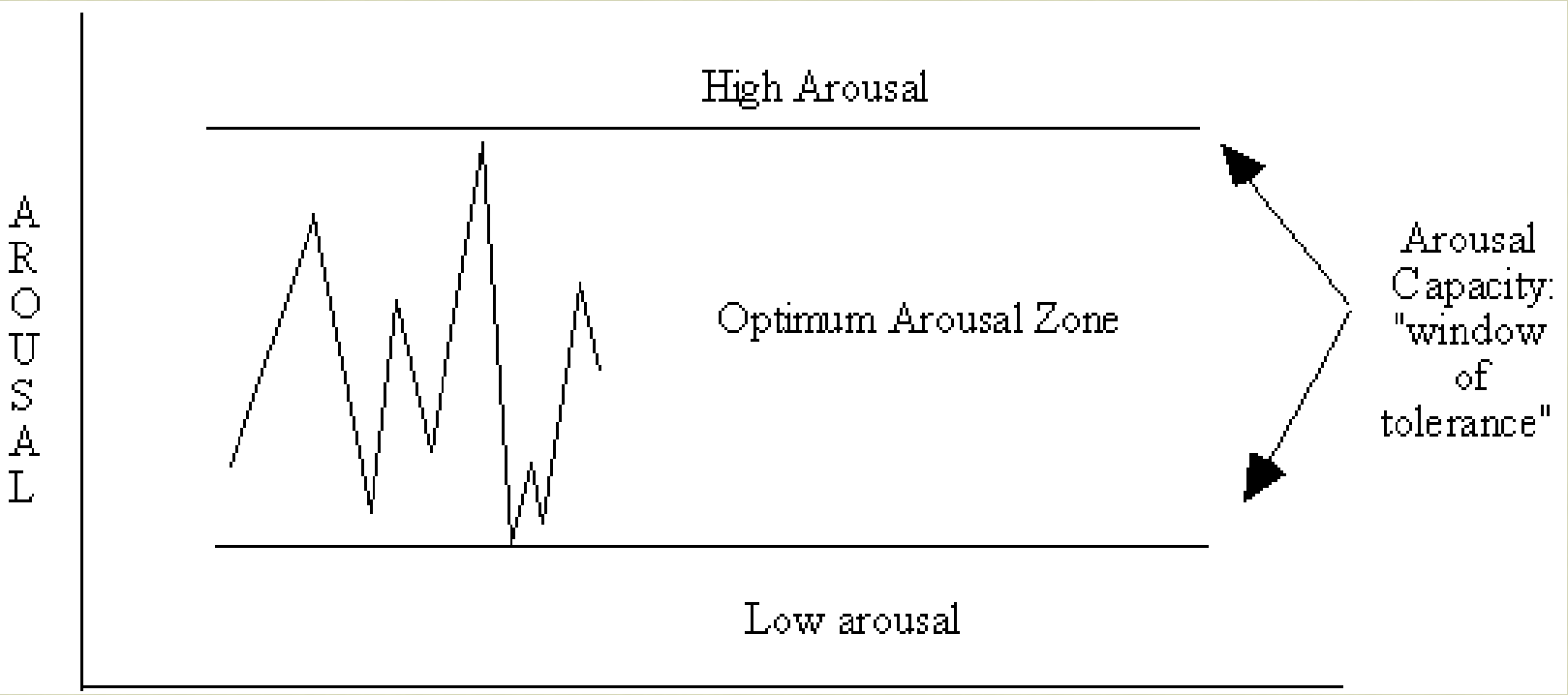
| Impacts | Needs |
| --- | --- |
| Stress<br><br>Interpersonal issues (eg avoid certain residents)<br><br>Burning out<br><br>Habits | To have the knowledge and skills to meet residents' needs<br><br>To work within a wider team with similar knowledge and skills, or more<br><br>To be supported in adapting their caregiving according to residents' changing needs |

# AN INTEGRATED COGNITIVE & SENSORY PROGRAM

# SENSORY MODULATION

…the capacity to regulate and organise the degree, intensity and nature of our responses to sensory input in a graded and adaptive manner.



# FUNCTIONAL COGNITION: ALLEN'S COGNITIVE LEVELS SCREEN


Assesses global **cognitive** processing capacity, instruction following, problem-solving,

# FUNCTIONAL COGNITION: ALLEN'S COGNITIVE LEVELS (1-4 OF 6)

**GOAL DIRECTED ACTIVITY**

4.8 Memorize new steps

4.6 Scans the Environment

4.4 Complete a goal

4.2 Differentiate parts of an activity

4.0 Sequence self through steps of activity

**MANUAL ACTIONS**

3.8 Use all objects & senses completion

3.6 Notes effects of actions on objects

3.4 Sustains actions on objects (repeats)

3.2 Distinguish between objects (sorts)

3.0 Grasps objects

**POSTURAL ACTIONS**

2.8 Use railing & grab bar for support

2.6 Walk to identified location

2.4 Walk

2.2 Stand and use righting reactions

2.0 Overcome gravity

**AUTOMATIC ACTIONS**

1.8 Raise body parts

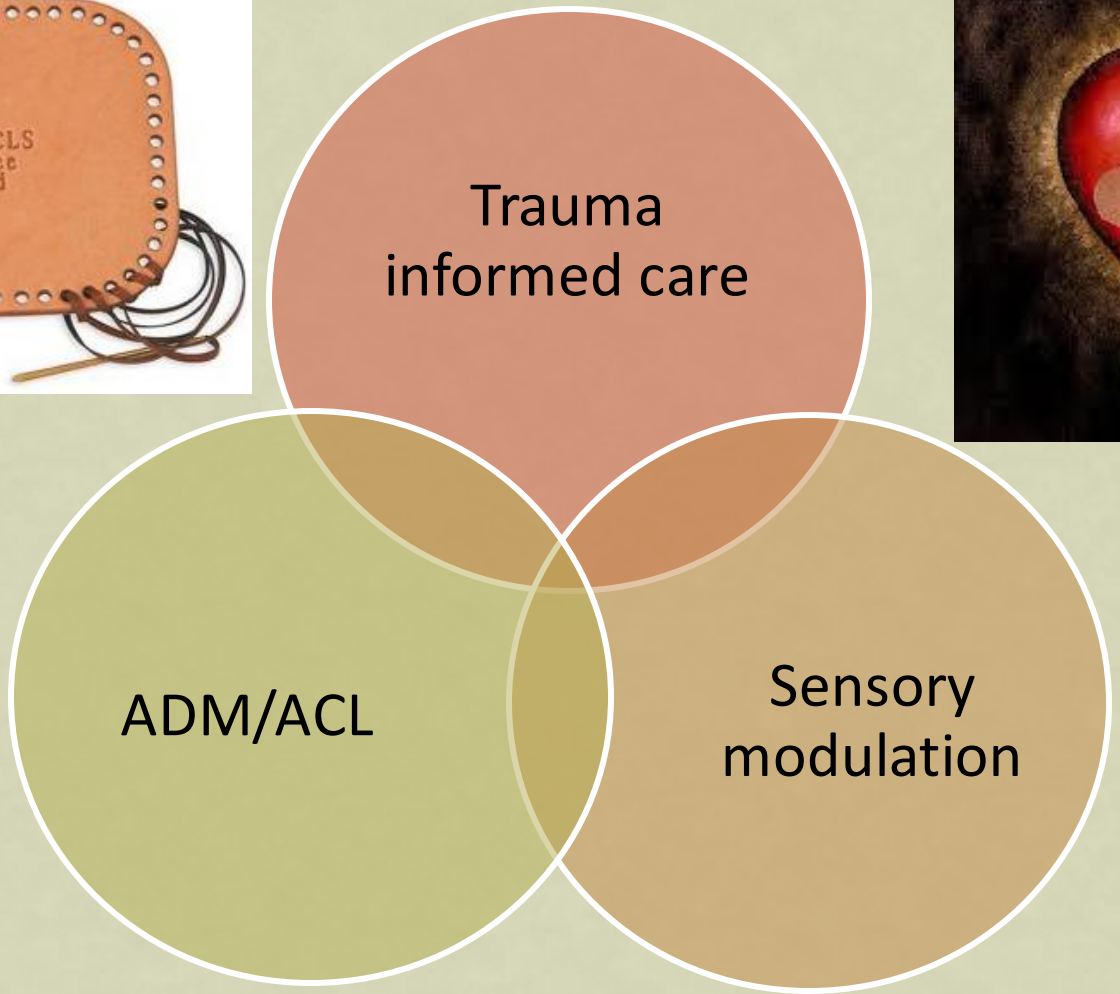
1.6 Moving in bed

1.4 Locates Stimuli

1.2 Respond to stimuli

1.0 Withdrawal from stimuli

# AN INTEGRATED COGNITIVE & SENSORY PROGRAM

# 2014-15 PILOT STUDY: OBJECTIVES

To explore the feasibility of an integrated cognitive and sensory program in a high-care dementia unit, and its acceptability to residents, their families and staff members.

To explore the effects of cognitive and sensory interventions on levels of BPSD and psychotropic medication use in a high–care dementia unit.

n= 32 residents
n= 50 care staff

Pre- post- intervention design
6 month intervention

# INTERVENTION

| Residents | Staff / environment |
| --- | --- |
| LACLS-5 or Canvas Placemat<br>Life & trauma history<br>Sensory profile<br><br>Tailored care planning and activities<br><br><br>Enhancements to environment & routine | 1 day training<br><br>Regular "Toolbox sessions" with OT and SW<br><br>On-floor OT support<br><br>Enhancements to environment & routine |

# IMPACT - RESIDENTS

↓ in falls & incidents of aggression

↓ in BPSD (anxiety, apathy, aberrant motor behaviour and total NPI-NH scores)

↓ in "occupational disruptiveness"

| NPI Items (n=27) | Mean Score Time 1 | Mean Score Time 2 | t | p value |
|---|---|---|---|---|
| **NPI total T1 – 2** | **42.78** | **22.85** | **4.788** | **.000*** |
| **Agitation T1 –T2** | 5.26 | 3.81 | 2.253 | .033 |
| **Depression T1 – T2** | 1.85 | 1.26 | 1.566 | .129 |
| **Anxiety T1 – T2** | **4.18** | **1.81** | **3.543** | **.002*** |
| **Apathy T1 – T2** | **3.74** | **2.29** | **2.801** | **.009*** |
| **Irritability T1 –T2** | 4.63 | 3.18 | 2.032 | .052 |
| **Aberrant motor behaviour T1 - T2** | **5.85** | **2.48** | **3.856** | **.001*** |
| **Occupational disruptiveness T1 - T2** | **17.78** | **7.48** | **6.353** | **.000*** |

# IMPACT- STAFF

"my verbal and non-verbal communication has improved to engage residents with more meaningful activity" AIN.

| Staff Knowledge | Mean Score | Range |
|---|---|---|
| Pre | 11.41 / 20 | 5 - 15 |
| **Post** | **16.59 / 20*** | **11 – 20*** |

"More team work, more ownership of behaviour management, not just a word" Social Worker.

"I'm now able to identify when residents are agitated so we can put interventions in place before it spirals" RAO.

"I have better insight with seeing how hard staff work" Manager.

"Residents are calmer. When agitated, there's a greater understanding of why. Personal needs are identified and met more quickly" AIN.

# ABSORPTION

- Integrated into Home's dementia training
- Integrated into Home's philosophy
- Roll out across 9 Units, 4 sites, low to high care

# KEY MESSAGES

Residents:

- Life & trauma history
- Sensory triggers & preferences
- ACL to identify cognitive & functional strengths

Care staff:

- Unit/neighbourhood-specific, regular training
- Practical strategies for individual residents
- Staff consistency

# THANK YOU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