DEMENTIA TRAINING STUDY CENTRES

POSSIBILITY ORIENTED CARE

A Guide to using the Hierarchic Dementia Scale to identify abilities and limitations for the person with dementia

Heather Freegard

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INTRODUCTION

Heather Freegard is an occupational therapist who has worked within the disability and aged care sectors for more than thirty years in diverse roles; clinician, advocate, staff development, academic, consultant and project coordination. Her particular interests are working with people with dementia and professional ethics. Her text 'Ethical Practice for Health Professionals', now in its second edition, is widely used as an undergraduate text. She was awarded the 1993 Sir Vincent Fairfax Churchill Fellowship to 'Investigate ways to positively identify remaining abilities of people with dementia.' The twelve-week study tour encompassed visits to Douglas Hospital and McGill University, Montreal, Quebec; University of Pittsburgh, Pennsylvania; Leicestershire mental health physiotherapy service, Leicester and the Dementia Services Development Centre, University of Stirling, Scotland.

The Hierarchic Dementia Scale (HDS) was developed by Dr Dolly Dastoor, clinical psychologist, Douglas Hospital and Dr Martin Cole, Psychiatrist in Chief at McGill University as a way to measure changes in cognitive ability across time, i.e. a longitudinal measure of cognitive decline. In addition, the theoretical concept on which the HDS is designed allows clear identification of remaining abilities at any point of assessment. It was this 'by-product' that makes the HDS a useful tool for health professionals planning meaningful and person-centred care for people with dementia.

The first implementation manual was prepared in 1994 as an educational aid to assist Occupational Therapists and other health professionals interpret the results gained from the HDS and develop appropriate strategies for people with dementia to both support cognitive losses AND utilise remaining abilities. Despite its rudimentary beginnings more than twenty years ago, health professionals continue to find it helpful however a revision is long overdue.

The new guide is presented within a context of Possibility Oriented Care, a philosophy of care and practice developed and crystallised over time by Heather in consultation and collaboration with colleagues, clients and families. Assessment is an important step in the process of identifying abilities and limitation linked within the context of problems and possibilities to develop strategies that support limitations and enhance remaining abilities The Guide is designed to be used in conjunction with the Hierarchic Dementia Scale developed by Dr Dolly Dastoor and Dr Martin Cole, and in no way replaces the presentation and scoring manual prepared by them.

The implementation Guide has many limitations:

Suggested strategies have been designed for each cognitive scale and cannot take into account the myriad of possibilities related to the interaction of other cognitive abilities and limitations, other health concerns or the impact of specific social and physical environments . Neither can it take into account a person's life story. It is still the responsibility of the health professional to identify and to take these factors into consideration for each individual client in suggesting supportive strategies.

The strategies identified are very general. To assure successful intervention the therapist needs to interpret the results of assessment within the individual client's past history, interests and current situation and tailor suggestions accordingly.

POSSIBILITY ORIENTED CARE:

- is a mindset that encompasses the following:

1. Every person, facility, organisation and health care system has abilities:
   - Knowledge
   - Skills
   - Attitudes
   - Resources
   - Time
2. Every person, facility, organisation and health care system has limitations:
   - Knowledge
   - Skills
   - Attitudes
   - Resources
   - Time
3. It requires persistence and determination to identify abilities
4. Everyone can identify limitations
5. Focussing on limitations alone creates a diminished environment based on control and powerlessness.
6. Focussing on abilities alone creates a chaotic environment with uncontrolled risk and certain failure.
7. Identifying both abilities and limitations enables realistic possibilities for meaning and satisfaction to be envisaged and acted upon.
8. A life lived with opportunity to engage abilities and supported limitations is one of meaning, purpose and satisfaction.

POSSIBILITY ORIENTED CARE ASSESSMENT

Assessment is an essential aspect of providing appropriate services and support for people with dementia. The assessment process requires an understanding of the situation in order to proceed in the most efficient and efficacious manner. The first step in the process is to identify the outcomes that are sought which will then clarify the purpose of the assessment process. The ultimate purpose of the assessment will then determine which assessments are administered.

PURPOSE OF ASSESSMENT

1. DIAGNOSIS

- Determine reason for behavioural change
- Rule out reversible causes of cognitive/behavioural change
- Understand the nature of the disease
- Identify other health concerns
- Timely referral to appropriate treatments and services

2. PROVISION OF SERVICES

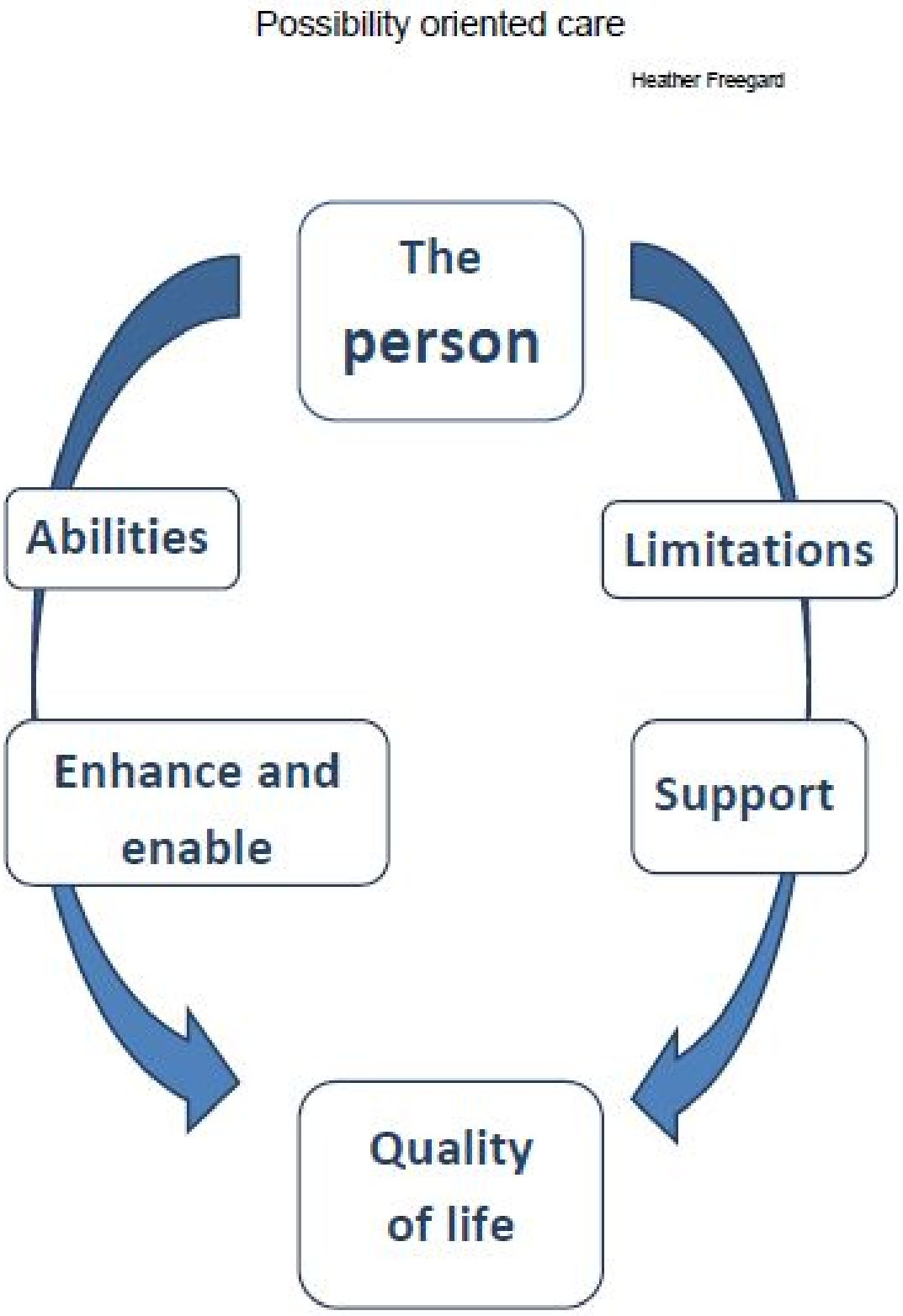
- Psychological and physical impact on family
- access appropriate treatment and services
- Justify care needs
- Anticipate and prepare for change
- Justify service provision
- Address legal and ethical issues

3. ENABLE AND EMPOWER THE PERSON

- Identify and utilise remaining function
- support limitations
- Understand the experience of the person
- provide continuity with past experiences
- provide person centred and relationship centred care

4. RESEARCH AND EVALUATION

- Describe the personal and social impact of dementia for those with the disease, their families, carers and others.
- Measure change over time
- Develop and test innovative services, treatments and interventions
- Evaluate outcomes of treatments, services and interventions


Possibility oriented care
Heather Freegard
The person
Limitations
Support
Quality of life
Enhance and enable
Abilities

ETHICAL CONSIDERATIONS FOR ASSESSMENT

Assessment, like all health and medical situations has ethical implications. For both the client and health professional the assessment process raises expectations of identification and amelioration of distress and ill-health. Decisions and actions require, for example, consideration of resource allocation, balancing benefits and burdens and respecting self-determination. The decisions and actions of health professionals affect people, therefore have the power to both help or harm others.

Every day each of us makes myriad ethical decisions; to admit a mistake or not; to pass on a piece of information provided to you in confidence; to assume knowledge rather than seek clarification. Every day we form opinions about how others should act and think; what is appropriate social behaviour and what is not; if a person is worthy to receive services. If we analyse the manner of daily events we realise that our everyday ethical reasoning is often unreliable, inconsistent, contradictory and influenced by the opinions and actions of others. Ethics should not be confused with institutional policies and procedures, the opinions of those in authority, religion, law, intuition, public opinion or consensus.

Ethics is the study of the truths and principles concerned about how society balances the rights and responsibilities of individuals and collectives fairly in order to live peacefully within sustainable resources. Bioethics is an area of applied ethics concerned with health and medical practice and outcomes that also encompasses broader social, environmental and animal ethics as they impact on human well-being.

Tom Beauchamp and James Childress published the 'four principles approach' in 1979, now in its sixth edition, to develop a practical bridge between ethical theories, and common morality that can be applied when making health related decisions. Its wide acceptance across the western world demonstrates its ability to guide health professionals without philosophical training and be inclusive of national, cultural, religious, political and philosophical differences. The four principles provide a common framework from which to explore the ethical dimensions of a situation. In summary the four principles are:

Beneficence	Acting for the good of individuals and society
Non-maleficence	Refraining or preventing harm to others
Justice	Being fair and equitable in allocating benefits and burdens
Autonomy	Allowing others to make decisions and act according to their own wishes

All principles are inter-related and no one principle takes precedence over another, rather they form a framework for moral analysis. The framework is an aid to decision-making; the health professional makes the decisions and takes responsibility for their decisions and actions.

Applying four principles within the context of Assessment:

Assessment should be done for a purpose eg for the diagnosis of dementia, to identify abilities and limitations, to plan care, to substantiate funding claims (Beneficence).

Assessment should be planned and conducted in ways that are in the best interests of the person considered for assessment (Autonomy).

Information gathered by assessment needs to be shared with the health care team to reduce the need for additional unnecessary assessment, balanced by the need to respect confidentiality (Beneficence – Non-maleficence).

All assessment is invasive to some degree because the process exposes aspects of the person (physical, cognitive, social, emotional, spiritual) to external scrutiny. Consent from the person themselves and/or the family should be obtained (Autonomy).

Use the least invasive alternatives to achieve the required result. Minimise assessments to obtain only accurate and essential information (Non-maleficence).

The diagnosis of dementia has serious implications for a person's future and that of their family and friends. In the absence of a definitive test for dementia, the assessment process on which a diagnosis is made should be timely, thorough and conducted by experienced and properly qualified people (Justice).

Participating in assessment raises the expectations of the person being assessed and their families that needs identified in the process will be supported and services provided. Consideration of the abilities and limitations of service provision and how these expectations will be addressed needs to be clarified before assessment (Justice and Non-Maleficence). Results and their interpretation should be communicated clearly and sensitively with the person and their advocate. Implications arising and development of interventions should be collaborative and centred on the person's needs and wishes (Autonomy and Beneficence).

CHALLENGES OF ASSESSMENT WITH A PERSON WITH COGNITIVE IMPAIRMENT

Note: Dementia comes from a 'western medical' viewpoint, not always shared or understood within other cultures and beliefs

For the person	**For the Family/advocate**
• Eligibility for service • Being ready for the appointment • Examination anxiety • Relationship of trust with assessment/team • Fear of failure • Fear of the consequences of results • Understanding why assessments are necessary • Accepting or questioning relevance of particular assessments or items in the assessment • Disclosure of private and personal information to strangers • Concern about how the information will be used • Multiple assessments of same/similar areas • Fatigue • New surroundings and people • Coping with sensory deficits, physical impairment, pain • Maintain concentration and interest	• Eligibility for service • Reasonable access to appropriate services (eg location and cost) • Advocating on behalf of the family member • Obtaining a timely appointment • Getting the person ready and to the appointment at the right time and place • Supporting the stress and anxiety of the person • Assisting general comfort; distance to walk, eating, drinking, toilet, rest, etc • Understanding why the assessments are necessary • Accepting or questioning relevance of particular assessments or items in the assessment • Disclosure of personal and private information to strangers • Concern about how the information will be used • Confronting limitations and abilities of family member • Concern regarding potential consequences of assessment • Interpreting and sharing information with the person and other family members

For the Health professional	For the Service

• Clarifying the purpose of assessment
• Choosing the most appropriate assessment tool (floor – ceiling effects: number of cognitive functions included)
• Availability and access to assessment tool and consumables
• Facility policy on tools to be used
• Qualified and experienced to use the assessment
• Administering the assessment and interpreting the results accurately
• Sharing the results with person, family and other team members coherently
• Other team member's familiarity with the assessment tool and its results.
  • Formulating intervention and treatment options
  • Proposing an intervention plan
  • Presenting information to person and family to gain informed consent
  • Accurately and succinctly recording results, findings and recommendations
  • Workload and case load expectations
  • Ability to support identified limitations and abilities within the service budget, etc.
	• Efficiency and effectiveness of service provision
	• Budgetary constraints
	• Salary and on-costs
	• Appropriately qualified staffing
	• Adequate staffing levels
	• Staff retention/turnover
	• Staff development and training required for new assessments
	• Managing fads of assessment
	• Costs of assessment tools, replacement parts and consumables related to the assessment
	• Coping with identified unmet needs

ASSESSMENT FOR DEMENTIA CARE

Assessment for dementia care requires a specific frame of mind which is more important than the tool or instrument used.

Person centred approach to assessment

- Respect and value the lifetime lived
- Clarify the purpose of assessment
- Develop a relationship of trust
- Identify abilities and limitations
- Determine level of achievement objectively, however support to success if possible
- Acknowledge failure
- Flexibility on approach and method
- Sensitivity to word, voice and body
- Active attention and listening
- Assessment as intervention
- Intervention as assessment
- Identify social and environmental contexts
- Use appropriate assessment tools
- Sensitivity to language and culture
- Interpret the results of cognitive assessment within health, social and environmental contexts.

INTERPRETATION OF HDS SCALES

Once the level of function is determined on each subscale it is possible to interpret in terms of possible supportive strategies.

This section of the Guide presents the following information for each subscale:

On the left hand page is information to describe the purpose and context of the subscale and the cognitive function assessed.

Name and number of the subscale	How this scale links with other scales for interpretation
Purpose	What the scale aims to assess
Measurement	How the scale is constructed
Confounding factors	Lists factors other than could interfere with an accurate measurement of the specific cognitive function to be assessed. Confounding factors arise from the design and structure of the assessment tasks, other health conditions and cognitive functions that could mask abilities and limitations The health professional needs to ensure that confounding are considered when assigning a specific level of cognitive function. Sometimes it is not possible to separate them and in this case careful notation is required and extreme caution in designating a level of function
Functional Implications	Describes how this cognitive function could impact on the person's abilities to exercise autonomy and engage in a meaningful and purposeful life

On the right hand page are general suggestions for strategies that support limitations and utilise remaining abilities appropriate to the identified level of function which are listed from highest (10) to lowest (0) function. All suggestions at and below the level of function should be considered. For example a person whose level is 6 can probably make use of suggestions at levels 6, 5, 4, 3, 2, 1 and 0.

The listed suggestions are based on the accumulated and shared experiences of practitioners and are definitely not an exact science.

Suggestions need to be considered in conjunction with other subscales and interpreted in terms of the individual's social and environmental contexts.

Subscale	**Recommendations**
10. test item heading	List of ideas to utilise remaining abilities
9.	

Name:	**1 ORIENTING**
Purpose:	To ascertain level of demonstrable awareness of the environment. Ability to establish contact and respond to people and social context. Links with 9, 15, 12
Measurement:	Response to the presentation of auditory, visual and tactile stimulation
Confounding factors :	• Auditory visual and tactile impairment • Presence of other sensory inputs within the environment • Presence of delirium or other health issues • Depression or other mood impairment • Medication • Pain • Role expectations • Relationship between examiner and client • Gender differences • Social manners
Functional implications:	Ability to gain attention Level of environmental stimulation required to create satisfaction versus stress Spontaneous – social skills Autonomous initiation of social contact

SUBSCALE 1 ORIENTING	RECOMMENDATIONS
10 No Impairment	• Provide opportunity for person to engage in a variety of social settings related to past experience and interests
8 Shakes Examiner's hand	• Connect the person to others by initiating contacts • Be with the person during social contacts
6 Reacts to Auditory Threat	• Check hearing aids/abilities • Inform person about what is happening around them and what you are going to do next • Introduce yourself
4 Reacts to Visual Threat	• Check visual aids • Seek eye contact • Smile • Ensure that information received by all senses is congruent
2 Reacts to Tactile Threat	• Get close to the person when seeking their attention • Adjust level of sensory input appropriately • Always act and address the person with respect • Do not assume the person cannot hear, see or feel your presence

Name:	**2 PREFRONTAL**
Purpose:	To ascertain presence or absence of primary reflexes
Measurement:	Techniques to elicit reflexes
Confounding factors:	• Unmet emotional needs • Hunger • Pain
Functional implications:	Prognosis Pain response Ability to control body voluntarily Ability to eat, chew, swallow Bowel and Bladder function Methods of gaining sensory satisfaction

SUBSCALE 2 PREFRONTAL		RECOMMENDATIONS
10	No Reflexes present	• Provide objects within the environment to see, touch, smell, taste, hear,
8	Tactile Prehension	• Avoid stimulating the reflex actions during moving and handling • Provide reassurance
6	Cephalobuccal Reflex	• Utilise objects that won't harm the person • Reduce unnecessary multiple stimuli • Use therapeutic touch • Initiate palliative care
4	Oro Visual Reflex	• Provide appropriate sensory stimulation • Utilise edible objects in activities • Use comforting rhythmic voice tones to communicate security and connection • Avoid sudden or loud movements and noises
2	Oral Tactile Reflex	• Maintain calm environment • Review duty of care • Review mealtime procedures • Review intake of fluids, solids • Read body language to determine level of comfort/pain • Utilise rocking, touch, massage to provide contact with outside world • Treat person and body with dignity and respect

Name:	**3 IDEOMOTOR**
Purpose:	Ascertain ability to plan and sequence voluntary motor movements. Links with 9
Measurement:	Ability to copy patterns of body movement demonstrated by examiner
Confounding factors:	• Visual impairment • Right/left discrimination • Paresis • Eye/hand coordination • Ideational apraxia • Gnosis • Physical deformity • Comprehension
Functional implications:	Ability to carry out unfamiliar actions Ability to perform familiar everyday activities Ability to follow demonstration Level and type of prompting required

SUBSCALE 3 IDEOMOTOR		RECOMMENDATIONS
10	Reversed hands	• Provide opportunity to experience a wide range of new and familiar motor patterns • Provide indirect verbal prompts
9	Double rings	• Give positive instruction • Make suggestions
8	Double fingers	• Give verbal instruction with demonstration and prompts
7	Opposed Hands	• Break down physical task to one step at a time
6	Single ring	• Wait for completion of previous step before giving next instruction
5	Single finger	• Give physical assistance to instigate, maintain or finish pattern of movement • Find alternative way of doing task or achieving result
4	Clap hands	• Develop repetitive, rhythmic movements if possible • Wait for spontaneous reactions
3	Wave	• Utilise familiar movement patterns • Utilise indirect verbal prompts
2	Raise hand	• Utilise familiar stereotyped movements
1	Open mouth	• Utilise proprioceptive neuromuscular facilitating patterns • Elicit oro-tactile or oro-visual reflexes to enable feeding

Name:	**4 LOOKING**
Purpose:	Ascertain the ability to identify and find meaning from 2D visual stimuli. Ability to locate small objects. Links with 8, 10
Measurement:	The response to presentation of a picture depicting a familiar and concrete scene.
Confounding factors:	• Figure / ground perception • Naming • Visual impairment • Familiarity of picture contents • Impaired eye musculature
Functional implications:	Ability to find objects in the environment Ability to understand the content of the environment Ability to understand relationship and connections between objects in the environment Ability to understand / enjoy TV, pictures, books Visual interest in environment Initiation of exploring the environment

SUBSCALE 4 LOOKING		RECOMMENDATIONS
10	Finds images	• Congruent use of all senses to provide meaning within the environment
8	Searches for images	• Use of colour and texture to emphasise important items within the environment • Point out and identify key elements in the environment
6	Grasps context of picture	• Provide opportunity to experience a variety of different environments, books to explore and enjoy • Use other sensory modalities to enhance understanding and enjoyment.
4	Scans picture	• Describe what is happening around the person • Familiar environment • Slow down movements within the environment
2	Looks at picture	• Structured environment • Use of real objects • Simplify environment • Do not assume person cannot see, hear or feel what is happening around them

Name:	**5 IDEATIONAL PRAXIC**
Purpose:	Ascertain person's ability to conceptualise and understand the use of, and manipulate objects Establish level of abstract thought Links with 3, 9, 19
Measurement:	Presentation of a situation that requires purposeful action
Confounding factors:	• Visual impairment • Auditory impairment • Physical ROM and dexterity • Language impairment • Familiarity of task • Short term memory deficit • Neuromotor impairment
Functional implications:	Level of abstract thought Ability to demonstrate understanding Ability to visualise/conceptualise/understand Ability to use previously learnt and familiar skills with or without concrete prompts Understand what is involved in carrying out familiar tasks Formulate, plan and sequence familiar tasks Identify mistakes and solve problems

SUBSCALE 5 IDEATIONAL PRAXIC		RECOMMENDATIONS
10	Imaginary match and candle	• Provide opportunity for person to utilise their ability to visualise and imagine
9	Imaginary nail and hammer	• Establish a context to assist the person to visualise and imagine familiar situations • Utilise indirect prompting
8	Imaginary scissors	• Simplify tasks • Mime required action
7	Imaginary comb	• Do not hurry person • Provide real objects
6	Match and candle	• Demonstrate required action using real objects • Use touch
5	Nail and hammer	• Provide environmental cues eg shower/taps/tiles/towel = bathing • Step by step instruction
4	Scissors	• Set tasks within short term memory span • Provide physical and verbal prompts
3	Comb	• Use of repetition and rhythm • Use objects that are familiar and clear connection between object and use
2	Put on shoes	• Physically initiate task
1	Open door	• Utilise previously learnt patterns • Provide opportunity • Do not assume person cannot do anything

Name:	**6 DENOMINATION**
Purpose:	Determine ability to name objects/parts of objects Link with 5
Measurement:	10 point scale of common objects with discrete parts – quality of response determines score
Confounding factors:	• Ability to recognise right word if offered by someone else – may still have understanding • Primary language other than English • Ability to read words/symbols • Ability to still use/carry out instructions • Figure/ground may impair recognition • Visual impairment • Speech difficulties eg stuttering
Functional implications:	Ability to communicate needs Ability to carry out instructions Presence of paraphasias Presence of anomia Need for translator

SUBSCALE 6 DENOMINATION	RECOMMENDATIONS
10 No errors	• Provide opportunity to converse with people with equal or better language abilities
9 Nominal aphasia parts	• Offer names/words • Explore use of primary language
8 Nominal aphasia objects	• Always check inability to name with ability to recognise the right word, or ability to use the object both verbally and written • Consider labels
7 Use of parts	• Simplify background visually to enhance recognition • Listen for description
6 Use of objects	• Use the context of an activity to enhance understanding • Interpret voice and body language
5 Conceptual field – parts	• Use demonstration/show/point • Provide familiar and meaningful objects
4 Conceptual field – objects	• Reframe activities that require naming
3 Sound alike – parts	• Try to use other sensory modalities eg touch • Offer synonyms or slang words to check meaning
2 Sound alike – objects	• Listen for paraphasias • Look for contextual clues to understand message • Listen for emotional content
1 Deformed words	• Provide appropriate sensory input • Do not assume person cannot understand what is said to them

Name:	**7 COMPREHENSION**
Purpose:	Ascertain the person's ability to comprehend written and verbal instructions
Measurement:	Response to presentation of instruction in verbal and written form
Confounding factors:	• Visual and auditory impairment • Word recognition • Primary language • Concentration span
Functional implications:	Ability to make decisions and understand consequences Ability of person to respond appropriately to requests, instructions Ability to person to respond in social surroundings Ability to understand humour, sarcasm, innuendo Competency to sign legal documents Guardianship and Administration issues

SUBSCALE 7 COMPREHENSION		RECOMMENDATIONS
Verbal		
5	Close eyes and touch left ear	• Provide opportunity to discuss issues and make decisions
4	Clap hands three times	• Repeat requests/instructions • Rephrase instructions • Wait
3	Touch your right eye	• Step by step instructions and explanations • Speak clearly • Use concrete language • Demonstrate
2	Touch your nose	• Physically initiate action • Gain attention • Utilise other sensory pathways
1	Open mouth	• Phrase requests to obtain automatic sub-cortical response • Reduce extra sensory stimulation • Use tone of voice to indicate direction, etc.
Written		
5	Close Eyes and touch left ear	• Provide opportunity to discuss issues and make decisions
4	Clap hands three times	• Review practical use of signs in the environment • Demonstrate required task
3	Touch your right eye	• Physically assist in initiation of movement
2	Touch your nose	• Minimise options • Demonstrate actions
1	Open mouth	• Give instructions verbally • Do not assume person cannot interpret other aspects within the environment

Name:	**8 REGISTRATION**
Purpose:	Ability to recognise and retain information within 3 minute span Link with 4, 9
Measurement:	Presentation of 1-5 common objects for visual inspection and then asking for a response after their removal
Confounding factors:	• Visual impairment • Agnosia • Word finding • Figure/ground • Concentration span
Functional implications:	Number of stimuli that a person can respond to and retain Length of time a person can retain information Accuracy of retained information

SUBSCALE 8 REGISTRATION		RECOMMENDATIONS
10	Spoon, candle, scissors, button, whistle	• Utilise person's ability to use skills
8	Spoon, candle, scissors, button	• Rehearse actions • Refresh the person's memory by retelling recent/important events • Allow time • Utilise lists • Cue
6	Spoon, candle, scissors	• Repeat instructions • Work within limitations • Reassure person • Provide memory cues, eg photos, diary
4	Spoon, candle	• Listen for related response especially fork for spoon • Prompt • Tell stories of recent events
2	Spoon	• Introduce yourself and purpose each time you meet • Inform the person • Don't assume the person will register nothing

Name:	**9 GNOSIS**
Purpose:	Ability to recognise the physical relationships within the environment Links with 12, 15
Measurement:	Response to visual and touch cues
Confounding factors:	• Visual impairment • Naming ability • Touch impairment
Functional implications:	Ability to recognise physical relationships within the environment Type and level of sensory prompts required Ability to use cues and clues within the external environment Ability to function with the external environment

SUBSCALE		RECOMMENDATIONS
9	GNOSIS	
10	Superimposed words	• Provide an external environment rich with familiar objects and textures
9	Superimposed images	• Simplification of background environment
8	Digital gnosis	• Utilise colour contrast to highlight important elements • Use real objects
7	Right-left - examiner	• Describe the surroundings • Demonstrate actions
6	Right-left – self	• Utilise other sensory pathways • Avoid use of right/left instructions
5	Body parts – examiner	• Describe/name
4	Body parts – self	• Show objects
3	Touch (pinch) 5cm	• Allow person to feel or hear or smell objects to enhance understanding
2	Touch (pinch) 5-15cm	• Present congruent sensory information
1	Response to touch	• Use firm touch and joint approximation to increase body awareness • Describe what is happening to the person at the same time • Review safety of external environment • Don’t assume that lack of response indicates a lack of awareness

Name:	**10 READING**
Purpose:	Ascertain ability to read the written word Links with 4
Measurement:	Response to presentation of graded written cue cards
Confounding factors:	• Visual impairment • Primary language • Speech impairment • Education level • Literacy
Functional implications:	Ability to follow signs Opportunity for leisure activity Use of notes as a memory aid Competency to sign documents

SUBSCALE 10 READING		RECOMMENDATIONS
10	Paragraph	• Provide opportunity to read material of individual interest • Opportunities to discuss contents, etc.
8	Paragraph with errors	• Check for understanding of written material eg medication, legal documents
6	The Cat Drinks Milk	• Presentation of written material at appropriate level • Monitor use of notes as a memory aid
4	Receive	• Monitor use of word signs/symbols
2	M	• Provide non verbal cues eg pictures, gestures • Don't assume that because a person cannot read that they won't enjoy looking at and handling a magazine or book

Name:	**11 ORIENTATION**
Purpose:	Ascertain person's ability to place themselves in time, place, person
Measurement:	Response to questions related to date, time, place, person
Confounding factors:	• Auditory impairment • Primary language • Pertinence of questions • Delirium • Medication • Psychotic dysfunction
Functional implications:	Self awareness Ability to understand context of their personal situation Ability to respond safely to environment

SUBSCALE 11 ORIENTATION		RECOMMENDATIONS
10	Date	• Provide opportunity for person to experience the present in a meaningful way • Provide normal orienting clues eg calendars, clocks
8	Month	• Provide orienting information as appropriate verbally, visually • Tell the person appropriate orienting information
6	Year of birth	• Use reminiscence to remind person of their past/present achievements • Introduce yourself and your relationship each time you meet the person
4	Morning or afternoon	• Monitor individual safety • Consider use of safety bracelets, etc.
2	First name	• Use external environment to provide familiar cues and clues • Don't assume that the person can remember nothing

Name:	**12 CONSTRUCTION**
Purpose:	Determine ability to interpret and manipulate objects in a purposeful manner Links with 12
Measurement:	Copying block designs using two colours and right angles and 45^{o} angles
Confounding factors:	• Visual, auditory deficit • Hemi paresis • Concentration span • Comprehension • Motor planning • Joint/motor disability
Functional implications:	Visuo-spatial ability Colour recognition Directionality Planning, organisation and execution of tasks Fine motor ability Ability to move within the environment Ability to move objects within the environment Problem solving ability Ability to identify parts of a whole Ability to recognise mistakes

SUBSCALE 12 CONSTRUCTION		RECOMMENDATIONS
10	Four blocks – diagonal	• Provide opportunity to explore and challenge construction abilities
8	Four blocks – square	• Present items in correct orientation
6	Two blocks – diagonal	• Use reassurance • Present items of task in sequential order • Reduce number of steps to complete task • Present familiar activities or tasks that utilise previously learnt actions
4	Two blocks – square	• Use prompts to initiate and sustain actions • Step by step instruction • Provide fail safe options • Provide tasks that require repetitive actions
2	Formbound circle	• Minimise choices/options • Careful use of colour to minimise confusion • Allow time • Do not assume that the person cannot do sometimes complicated but familiar tasks

Name:	**13 CONCENTRATION**
Purpose:	Determine ability to focus on a task until completion
Measurement:	Complete a series of related tasks
Confounding factors:	• Level of abstract thinking • Visual/auditory impairment • Presence of competing stimuli • Delirium • Educational level • Primary language • Stress response
Functional implications:	Ability to attend to stimulus Degree of competing stimuli within environment Complexity of tasks Ability to complete task within concentration span Ability to converse, continue, finish sentences and thoughts Attend to and focus thoughts Interpret events and their causes Problem solving Coping with stress

SUBSCALE 13 CONCENTRATION		RECOMMENDATIONS
10	Serial 7's (100, 93....)	• Provide activities and environment that encourages maximum concentration span
9	Serial 3's (30, 27....)	• Simplify structure of activity/conversation
8	Months of year backwards	• Paraphrase conversation
7	Days of week backwards	• Prompting to initiate and sustain actions
6	93-85	• Lots of short activities rather than one long one • Provide tasks that have meaning and purpose for the person
5	10-1	• Variety of activity utilising different cognitive/motor skills • Prompt
4	Months of year forwards	• Repeat sentences • One to one for tasks that require a lot of concentration • Fill in the gaps to encourage continuation
3	Days of week forwards	• Reduce competing sensory stimuli • Provide familiar environment and activities
2	1-10	• Structure task to be completed within concentration span
1	Counting 10 objects	• Activities and repetitive actions • Provide activities that are important to the person • Utilise concrete activity that provides visual prompts

Name:	**14 CALCULATION**
Purpose:	Ability to understand and manipulate concept of numbers and other abstract concepts Links with 19
Measurement:	Series of graded mathematical calculations
Confounding factors:	• Visual/auditory impairment • Educational level • Ability to conceptualise figures • Concentration span • Dyslexia • Primary language
Functional implications:	Management of financial affairs Concept of money Abstract thought Reasoning Moving around in space Logic Ability to reverse thought sequences

SUBSCALE 14 CALCULATION		RECOMMENDATIONS
10	43 - 17	• Provide opportunity to engage in tasks that are abstract
9	56 + 19	• Check person's numeracy levels prior to disease process • Evaluate person's competency to manage own affairs • Apply for administration order, etc
8	39 – 14	• Structure opportunities to use money
7	21 + 11	• Use diagrams/pictures
6	15 – 6	• Present real objects, situations
5	18 + 9	• Determine cues needed to assist with reasoning eg sensory, concrete • Talk person through the environment
4	9 – 4	• Use step by step cause and effect reasoning
3	8 + 7	• Simplify tasks
2	2 -1	• Break down choices into steps
1	3 + 1	• Binary choices
		• Rote learning related to numbers may be intact

Name:	**15 DRAWING**
Purpose:	Ascertain ability to interpret and copy relationships in space
Measurement:	Copy a series of geometric line drawings
Confounding factors:	• Visual impairment • Educational skills • Fine motor skills • Concentration span • Medication • Eye/hand coordination • Ability to initiate task
Functional implications:	Ability to interpret the external environment Understand relationships between objects Planning, organisation and execution of tasks Directionality and need for directional guidance Ability to recognise mistakes Ability to correct mistakes Fine motor skills

SUBSCALE 15 DRAWING		RECOMMENDATIONS
10	Cube	• Provide challenging opportunities to maintain skills
9	Cube (difficulty with perspective)	• Provide task with margin of error allowed
8	Two rectangles	• Avoid 3D representation • Minimise complexity of task by reducing number of steps and/or objects
7	Circle and square	• Provide real objects as samples • Describe and explain the environment • Step by step instruction
6	Rectangle	• Describe and explain the environment • Allow time • Reduce clutter
5	Square	• Utilise familiar tasks
4	Circle inside circle	• Support loss of depth perception
3	Circle	• Avoid colours, patterns, shapes that could be misinterpreted as holes, steps, etc
2	Line	• Reduce extra sensory stimulation
1	Scribble	• Provide opportunity to enjoy sensory experiences
		• The person may still be able to sign name. Link with comprehension for competency

Name:	**16 MOTOR**
Purpose:	Determine ability to negotiate and seek out the environment
Measurement:	Elicit and observe motor patterns
Confounding factors:	• Previous injury • Arthritis/joint deformity • Paralysis • Spinal injury • Nerve injury • Muscle weakness/imbalance • Concurrent illness • Pain • Fear
Functional implications:	Responsiveness to environment Level of care needs Functional ability

SUBSCALE 16 MOTOR		RECOMMENDATIONS
10	No impairment	• Provide opportunity to usefully expend physical energy
9	Increased muscle tone – repeated	• Do not hurry the person
8	Increased muscle tone – initial	• Relaxation techniques
7	Loss of rhythm	• Mirroring/leading
6	Loss of associated movements	• Use of rhythmic, repetitive actions • Correct postural seating for function • Falls prevention
5	Contracture of legs	• Relaxation techniques • Use of patterns of movements • Frequent changes of posture • Include opportunities to experience different environments
4	Kyphosis	• Address postural seating issues for comfort
3	Vertical restriction of eye movement	• Present objects in midline
2	Non-ambulatory	• Provide opportunity to be in a variety of environments • Joint range of motion • Massage • Warmth
1	Lateral restriction of eye movement	• Stand in front of person to gain attention • Maintain frequent human contact and loving touch

Name:	**17 REMOTE MEMORY**
Purpose:	Ability to recall pertinent aspects of individual's past
Measurement:	Series of questions related to personal past experiences
Confounding factors:	• Head injury • Person's past experience • Cultural background • Psychosis • Sense of privacy • Language deficit
Functional implications:	Self concept, self image, role awareness Sense of security Re-orientation abilities Knowledge of past medical and social history Awareness of loss and emotional response to loss

SUBSCALE 17 REMOTE MEMORY		RECOMMENDATIONS
10	Amount of pension	• Provide opportunities and cueing to allow memories to surface
8	Number of grandchildren	• Allow time for memories to surface • Encourage the sharing of stories • Record for posterity
6	Year of marriage or first job	• Use of photographs, objects, etc to cue memory
4	Father's occupation	• Reminiscence groups/individual • Not all memories relate to words – engender a feeling
2	Place of birth	• Gain/seek knowledge from family/significant others • Don't assume that a person has no memories because they have lost the words to express them • Don't assume that all memories and past experiences were happy

Name:	**18 WRITING**
Purpose:	Ability to visualise and create meaningful written language
Measurement:	Series of tasks requiring person to write words with meaning
Confounding factors:	• Literacy • Educational level • Primary language • Fine motor skills • Visual deficit • Concentration span • Language deficit
Functional implications:	Fine motor coordination Eye/hand coordination Personal memory cues Ability to communicate Ability to express wishes

SUBSCALE 18 WRITING		RECOMMENDATIONS
Form		
5	Flowing style	• Provide opportunity
4	Loss of flow	• Allow for margins of error
3	Letters misshapen	• Don't criticise results
2	Repetition of substitution of letters	• Look for paraphasias, etc and interpret accordingly
1	Scribbble	• Seek other confirmation of messages
Content		
5	No error	• Encourage opportunity to communicate with wider community by writing letters/cards
4	Word substitution	• Check competencies to sign legal documents, etc • Simplify written opportunity • Assist with meaning writing tasks, eg Christmas Cards
3	Missing preposition	• Explore possibilities of written paraphasias
2	Missing verb or noun	• Check meaning with overall context
1	Missing two or more words	• Seek other confirmation of messages
		• Check the person's comprehension of what is written

Name:	**19 SIMILARITIES**
Purpose:	Ability to reason and deduce information
Measurement:	Presentation of familiar cues graded from simple to complex concepts
Confounding factors:	• Auditory deficit • Language deficit • Memory • Visualisation • Concentration • Primary language
Functional implications:	Ability to interpret and respond to complex and/or abstract situations Social behaviour Logical thought Ability to reverse thought sequence (backtrack cognitively) Reasoning ability Ability to make decisions and understand consequences Guardianship and Administration issues

SUBSCALE 19 SIMILARITIES		RECOMMENDATIONS
10	Airplane – bicycle	• Provide opportunity to discuss and problem solve abstract ideas
8	Gun – knife	• Use step by step cause and effect reasoning • Check competency to make decision
6	Cat – pig	• Break down choices into steps • Person may know there is a similarity but not able to find the words
4	Pants – dress	• Use binary choices • Present concrete cue and clues
2	Orange – banana	• Simplify requests
		• The person may know very clearly what they don't want

Name:	**20 RECENT MEMORY**
Purpose:	Ascertain ability to recall information presented in previous five minutes
Measurement:	Recall of 1 – 5 items presented for registration
Confounding factors:	• Language deficit • Depression • Visualisation deficit • Pain • Overstimulation • Primary language • Familiarity of objects • Fatigue • Emotional status
Functional implications:	Ability to retain and act on information Need for prompts and guidance Safety Completion of tasks Presence of cognitive memory strategies Ability to develop relationships with environment Ability to maintain and develop lasting social relationships

SUBSCALE 20 RECENT MEMORY		RECOMMENDATIONS
10	All five	• Presentation of information (visual, sound, tactile, auditory) to enhance registration, recognition and recall
8	Any four	• Use memory cues eg lists • Use activities of high value to client to enhance memory
6	Any three	• Utilise notes, photos, etc to recreate recent events
4	Any two	• Present information within recent memory span • Provide for appropriate prompts and reminders
2	Any one	• Create positive emotional overtones to enhance memory • Use personal items/family members • The person may remember very important things

INTERPRETING THE RESULTS OF THE HDS

To use the HDS to plan care it is important to move beyond the numerical score. The graphed results are helpful to determine clusters of abilities and limitations and change over time. Some of the most important information comes from observations throughout the assessment process that don't 'fit' on the score sheet; how the person responded to cues to achieve success; signs of stress; social facts, life story incidents, leisure and works preferences expressed in passing, etc.

At the conclusion of the assessment and all other assessment data (interview, social assessment, environmental assessment, clinical information, etc) draw up a list of Abilities and Limitations. Avoid medical terminology and generalisations. 'Poor ideational praxis' conveys nothing useful whereas ' Can demonstrate use of real everyday personal items' provides real information.

It is tempting to skip this step and move immediately to solutions and strategies. However taking the time to synthesise ALL assessment and observational data provides a deeper understanding of the whole person and makes important links between disparate bits of information.

Abilities and Limitations

Name: Date:

Information based on:

	Abilities	**Limitations**
Communication: Word Voice Body Receptive Expressive Language		
Health and Well-being Physical Emotional Spiritual		
External Environment Physical Social		
Activity 24 hours Past, present, future Work, leisure, rest, self-care Physical, social, cognitive, spiritual, emotional		

Problems and Possibilities

The next step is identify areas of interest and possibilities that are available and difficulties that the person is experiencing, or the carer finds difficult to understand or manage.

	Possibilities	**Problems**
Work		
Leisure		
Self care		
Rest		

Strategies and Interventions

Now we are in a position to make practical suggestions to support and enable the person.

Using SMART planning and documentation is helpful to develop person centred and context specific interventions. SMART is an acronym with various combinations, all potentially relevant for the care planning process, for example

S - Specific, significant,

M - Measurable, meaningful, motivational

A - Agreed upon, attainable, achievable, acceptable,

R - Realistic, relevant, reasonable, rewarding,

T - Time-based, timely, tangible,

Name: Date:

	To enhance abilities	**To support limitations**
Communication		
Health and Well-being		
External Environment		
Activity		

Any activity can be adapted to fit a person's abilities and limitations using DRAMAS.

Element	Aspects
Dignity	Relevance Age appropriate Risk
Repetitive	Routine Ritual Familiarity
Agreeable	Task Process Have to Should do Want to
Modifiable	Physical Cognitive
Adaptable	Time Place Person
Safe	Risk assessment Nature of risk: Social, emotional, cognitive, spiritual and physical Real or potential Who for?

Evaluation

Next it is important to evaluate the effectiveness of the supports and strategies that have been implemented. In the spirit of possibility oriented care this requires us to check whether the person's life has changed for the better. While a decrease in negative outcomes is generally helpful, especially to the carer a more positive approach is to evaluate against the Characteristics of Contentment. An improvement in overall contentment will be accompanied by a decrease in negative outcomes, whereas a decrease in negative outcomes does not always ensure and increase in contentment.

Characteristics of Contentment

Calm and relaxed	Body posture and mood free of tension
Experiences pleasure	Enjoys social or sensory experiences
Tracks with eye **Makes eye contact**	Follows what is happening in the environment Engages with individuals
Helpful	Seeks or is willing to assist others
Responds to sensory input	Appropriately appreciates noxious and pleasant smells, tastes, noises, sights and touch
Enjoys being with others	Is comfortable in the company of others either passively or actively
Alert	Is awake and aware of surroundings
Sleeps well	Sleeps for appropriate length of time Wakes refreshed
Enjoys eating and drinking	Social and physical aspects of eating and drinking are appreciated
Gains satisfaction	A sense of achievement at having accomplished a task or activity or interaction with another
Gives and receives affection	Responds to kindness, fondness positively
Sense of dignity and self-worth	Respects themselves and expects other to show respect
Assertive	Able to make needs known or make choices firmly and politely
Sense of humour	Able to react to situations of absurdity with laughter or smiles

The Characteristics of Contentment are adapted from Kitwood's 'Indicators of Well-being' and Nancy Mace's physiological measures of mental health.

REFERENCES

- Allen, C., Earhart, C. & Blue, T. 1992. *Occupational therapy treatment goals for the physically and cognitively disabled.* Rockville, MD: AOTA.
- Beauchamp, T. & Childress, J. 1979, 1983, 1989, 1994, 2001, 2009. *Principles of biomedical ethics.* New York: Oxford university press.
- Bickel, H. 1996. The Hierarchic Dementia Scale: Usage. International Psychogeriatrics; 8(2), 213-224.
- Boller, F., Verny, M., Hugonot-Diener, L. & Saxton, J. 2002. Clinical features and assessment of severe dementia. *European Journal of Neurology, 9*; 125-136.
- Brody, E., Kleban, M., Lawton, M. & Silverman, H. (1970. Excess disabilities of mentally impaired aged: impact of individualized treatment. *The Gerontologist; 25* (2 Part 1), 124 – 133.
- Brooker, D. 2006. *Person centred dementia care: Making services better*. London: Jessica Kingsley Publishers Ltd.
- Cole, M. & Dastoor, M. 1987. a new hierarchic approach to the measurement of dementia. *Psychosomatics, 28:* 298-304.
- Crook, T., Ferris, S. & Bartus, R. Eds. 1983. *Assessment in geriatric pharmacology.* New Caanan, Connecticut: Mark Powley. 50-51.
- Dastoor, D. & Cole, M. 1988. Age related patterns of decline in dementia as measured by the Hierarchic dementia Scale (HDS*). American Journal of Alzheimer's Disease and Other Dementias. 3:* 29
- Dastoor, D. & Cole, M. 1996. the Hierarchic Dementia Scale: conceptualisation. *International Psychogeriatrics 8*(2), 205-212.
- Douglas, A., Liu, L. & Hopper, T. 2007. Cognitive assessments for older adults: which ones are used by Canadian therapists and why. *Canadian Journal of Occupational Therapy, 74*(5), 370-380.
- Espino, D., Lichenstein, M., Palmer, R. & Hazuda, H. 2001. Ethnic differences in Mini-Mental State Examination (MMSE) scores: where you live makes a difference. *Journal of American Geriatrics Society 49*: 538-548.
- Folstein, MF., Folstein, SE. & McHugh, PR. 1975. Mini Mental State: a practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research 12*; 189-198.
- Freegard, H. & Isted, I. Eds. 2012. *Ethical practice for health professionals 2nd ed.* Melbourne: Cengage.

- Gauthier, M, et al. 1990. Tetrahydoaminoacridine-lecithin combination treatment in patients with intermediate stage Alzheimer's Disease*. The New England Journal of Medicine;* 1272-1276.
- Gold, D., Dastoor, D. & Zieren, C. 1996. Further validation of the Hierarchic Dementia Scale: a longitudinal study of cognitive function in dementia. *American Journal of Alzheimer's Disease and Other Dementias; 11*: 2-6.
- Hammell, K. & Iwama, M. 2012. Well-being and occupational rights: an imperative for critical occupational therapy. *Scandinavian Journal of Occupational Therapy. 19*: 385 – 394.
- Hughes, J. 2011. *Thinking through dementia*. Oxford: OUP.
- Hughes, J., Lloyd-Williams, M. & Sachs (Eds.). 2010. *Supportive care for the person with dementia*. Oxford: OUP.
- Hughes, J., Louw, S. & Sabat, S. (Eds.). 2006. *Dementia: mind meaning and the person*. Oxford: OUP.
- Iwama, M. 2006. *The Kawa Model: culturally relevant occupational therapy*. Edinburgh: Churchill Livingstone Elsevier.
- Kielhofner, G. 2002. *Model of Human Occupation: theory and application 3rd ed.* Baltimore: Lippincott Williams & Wilkins.
- Kitwood, T. 1997. *Dementia reconsidered: the person comes first.* Buckingham: Open University Press.
- Kitwood, T. & Bredin, K. 1992. *Person to person: a guide to the care of those with failing mental powers.* Loughton: Gale Centre Publications.
- Kramer, P., Hinojosa, J. & Royeen (Eds.). C. 2003. *Perspectives in human occupation: participation in life.* Philadelphia: Lippincott Williams & Wilkins.
- Mace, N. & Rabins, P. 1981, 1985, 1999. *The 36-hour day: caring at home for confused elderly people.* Baltimore: John Hopkins University Press.
- Molloy, DW. & Clarnette, R. 1999. *Standardized Mini-Mental State examination: A user's guide.* Troy, Ontario: New Grange Press.
- Malloy, DW., Alemayehu, MB., Roberts, R. 1991. Reliability of Standardized Mini-Mental State examination compared with traditional Mini-Mental State Examination. *American Journal of Psychiatry 148* (1), 102-105.
- Malloy, WD. & Standish T. 1997. Mental Status and Neuropsychological Assessment: a guide to the Standardized Mini-Mental State Examination. *International Psychogeriatrics, 9*, Supp 1; 87-94.
- May, H., Edwards, P. & Brooker, D. 2009. *Enriched care planning for people with dementia*. London: Jessica Kingsley Publishers.

- Mungas, D., Marshal, S., Weldon, M., Haan, M. & Reed, B. 1996. Age and education correction of Mini-Mental State Examination for English and Spanish-speaking elderly. *Neurology, 46* (3), 700-7006.
- Nolan M., Davies S., Brown J . , Keady J . & Nolan J . (2004) Beyond 'person-centred' care: a new vision for gerontological nursing Journal Of Clinical Nursing, 2004, Vol.13(3A), pp.45-53
- Paterson, J., Managh, M. & Grant, H. 2000. the effectiveness of the Hierarchic Dementia Scale in tailoring interventions to reduce problem behaviours in people with Alzheimer's Disease. *Australian Occupational Therapy Journal, 47*, 134-140.
- Paxon, D., Winston, K., Tobey, T., Johnston, S. & Imawa, M. 2012. The Kawa model: therapists' experiences in mental health practice. *Occupational Therapy in Mental Health, 28* (4), 340- 355.
- Poon, Wan-kei Vickie., Lam, Chiu-wa Linda. & Wong, Yeung-shan Samuel. 2008. Assessment of the severity of dementia: validity and reliability of the Chinese (Cantonese) version of the Hierarchic Dementia Scale (HDS). *International Journal of Geriatric Psychiatry, 23,* 909-914.
- Reisberg, B., Franssen, E., Bobinski, M., Auer, S., Monteiro, I., Boksay, I., Weigal, J., Shulman, E., Steinberg, G., Souran, L., Kluger, A.,Torassian, C., Sinaiko, E., Wisniewski, H. & Ferris, S. 1996. Overview of methodologic issues for pharmacologic trials in mild, moderate, and severe Alzheimer's Disease. *International Psychogeriatrics,8*(2), 159-193.
- Robert, P., Ferris, S., Gautier, S., Ihl, R., Winblad, B. & Tenningkeit, F. 2010. Review of Alzheimer's Disease scales: is there a need for a multi-domain scale for therapy evaluation in medical practice? *Alzheimer's Research & Therapy, 24 (2),* http://alzres.com/content/2/4/24
- Ronnberg, L. & Ericsson, K. 1994. Reliability and validity of the Hierarchic Dementia Scale. *International Psychogeriatrics, 6*(1), 87-93.
- Sabat, S. 1994. Excess disability and malignant social psychology: a case study of Alzheimer's Disease. *Journal of Community & Applied Social Psychology; 4* (3), 157 – 164.
- Townsend, E. (Ed.). 2002. *Enabling occupation: an occupational therapy perspective*. Ottawa: CAOT
- Townsend, E. & Polatajko, H. 2007. *Enabling occupations II: advancing an occupational therapy vision for health, well-being and justice through occupation*. Ottawa: CAOT.
- Wada, M. 2011. Strengthening the Kawa model: Japanese perspectives on person, occupation and environment. *Canadian Journal of Occupational Therapy, 78*, 230 – 236.
- Wylie, K., Madjar, I. & Walton, J. 2002. Dementia care mapping: a person centred, evidenced-based approach to improving the quality of care in residential care settings. *Geriaction 20* (2). 5 – 9.