The Possibility Oriented Approach

A guide to using the Hierarchic Dementia Scale - Revised (HDS-R) to identify abilities and limitations for the person with dementia

HDS-R
HIERARCHIC DEMENTIA SCALE - REVISED

Heather Freegard

Edited by Terrie Simpson

Acknowledgements:

Important notice: this work may not be a Commonwealth publication or product

The Possibility Oriented Approach

ISBN: 978-0-9942935-1-0

CONTENTS

INTRODUCTION

Heather Freegard has worked as an occupational therapist 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.

The Possibility Oriented Approach is a philosophy of care and practice developed and crystallised over time by Heather in consultation and collaboration with colleagues, clients and families. Special acknowledgement should be made to Jenny Perkins, an experienced and dynamic occupational therapy colleague, for her vision and passion for improving residential care for people with dementia. Assessment is an important step in the process of identifying abilities and limitations linked within the context of problems and possibilities to develop strategies that support limitations and enhance remaining abilities. This guide is designed to be used in conjunction with the Hierarchic Dementia Scale—Revised and in no way replaces the presentation and scoring manual.

This 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.

THE POSSIBILITY ORIENTED APPROACH

- 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 opportunities to engage abilities and support limitations is one of meaning, purpose and satisfaction.

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 condition

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

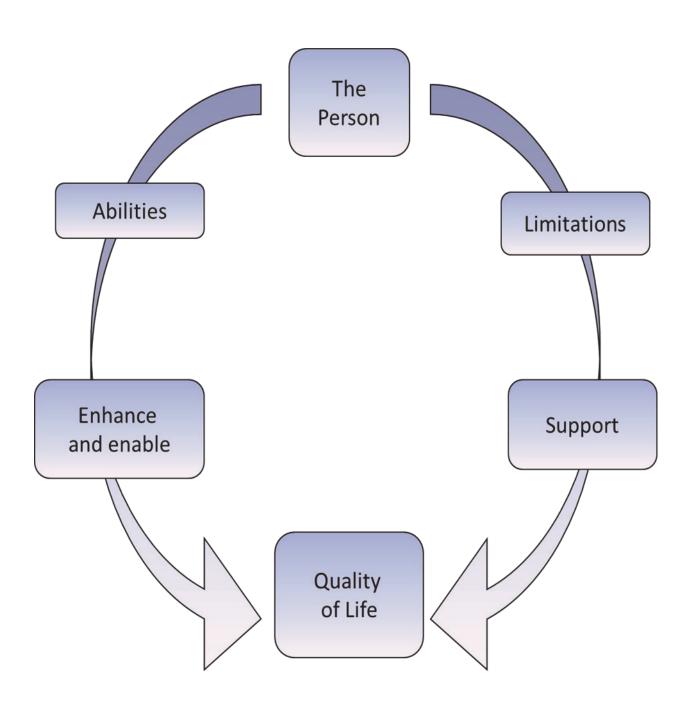Describe the personal and social impact of dementia for those with the disease, their families, carers and others.

Measure change over time

Develop and test innovative assessments, services, treatments and interventions

Evaluate outcomes of treatments, services and interventions

THE POSSIBILITY ORIENTED APPROACH

The Person

Limitations

Abilities

Support

Enhance and enable

Quality of Life

Heather Freegard

ETHICAL CONSIDERATIONS FOR ASSESSMENT

Assessment, like all health and medical situations has ethical implications. For the client, family 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 they 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 with 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.

Beauchamp and Childress originally published the 'four principles approach' in 1979. Now in its seventh edition, it develops 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 the four principles within the context of Assessment:

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

For the Health Professional	For the Service
Clarifying the purpose of assessment	Efficiency and effectiveness of service provision
Choosing the most appropriate assessment tool (floor – ceiling effects; number of cognitive functions included)	Budgetary constraints
Availability and access to assessment tool and consumables	Salary and on-costs
Facility policy on tools to be used	Appropriately qualified staffing
Qualifications and experience to use the assessment	Adequate staffing levels
Administering the assessment	Staff development and training required for new assessments
Interpreting the results accurately	Staff retention / turnover
Sharing the results with person, family and other team members coherently	Managing fads of assessment
Other team member's familiarity with the assessment tool and its results.	Costs of assessment tools, replacement parts and consumables related to the assessment
Formulating intervention and treatment options	Addressing identified unmet needs
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.	

ASSESSMENT OF PEOPLE WITH DEMENTIA

The assessment of people with dementia 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 the person 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.

THE HIERARCHIC DEMENTIA SCALE—REVISED

For information on completing the Hierarchic Dementia Scale, (HDS-R) refer to the instruction manual which is provided with the HDS-R kit.

In keeping with the revised version of the HDS (HDS-R), rather than using a numbering system, the subscales are grouped and colour-coded according to domain. The domains and subscales are as follows:

Perception	Orienting
	Gnosia
	Looking
Orientation, Attention & Memory	Concentration
	Registration
	Recall
	Personal Memory
	Orientation
Calculation	Calculation
Language	Following Instructions
	Word Finding
	Reading
	Writing
	Similarities
Praxis	Ideomotor Praxis
	Ideational Praxis
Spatial Abilities	Drawing
	Construction
Movement	Primitive Reflexes
	Motor

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

INTERPRETATION OF THE SUBSCALE SCORES

The following information is presented 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	Name of the subscale
Purpose	What the scale aims to assess. How this scale links with other scales for interpretation
Measurement	How the scale is constructed
Confounding factors	Lists factors that 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 assessor needs to ensure that confounding factors 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 should be taken 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		
8		

Domain – Perception

Name:	**ORIENTING**
Purpose:	To ascertain the level of demonstrable awareness of the environment. Ability to establish contact and respond to people and social contexts. Links with gnosia, construction and drawing.
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

Domain – Perception

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

Domain – Perception

Name:	Gnosia
Purpose:	Ability to recognise the physical relationships within the environment. Links with construction and drawing
Measurement:	Response to visual and touch cues
Confounding factors:	Visual impairment Naming ability Touch impairment Primary Language
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

Domain – Perception

Gnosia		Recommendations
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 – assessor	Describe the surroundings Demonstrate actions
6	Right-left – self	Utilise other sensory pathways Avoid use of right/left instructions
5	Body parts – assessor	Describe/name objects and people within context
4	Body parts – self	Show or demonstrate objects
3	Touch 5cm	Allow person to feel or hear or smell objects to enhance understanding
2	Touch 5-15cm	Present congruent sensory information
1	Response to touch	Use firm touch and joint approximation to increase body awareness Simultaneously describe what is happening to the person Review safety of external environment
0		Don't assume that lack of response indicates a lack of awareness

Domain – Perception

Name:	**LOOKING**
Purpose:	Ascertain the ability to identify and find meaning from two dimensional visual stimuli. Ability to locate small objects. Links with registration and reading.
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 the environment Initiation of exploring the environment

Domain – Perception

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 contents 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	Provide a structured, simplified environment. Use real objects
0		Don't assume the person cannot see, hear or feel what is happening around them. Continue to provide opportunities for the person to look at pictures, photographs etc,

Domain – Orientation, Attention & Memory

Name:	**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 stimuli Degree of competing stimuli within environment Complexity of tasks Ability to complete tasks within concentration span Ability to converse, continue, finish sentences and thoughts Ability to attend to and focus thoughts Ability to interpret events and their causes Problem solving Identifying environmental stressors

Domain – Orientation, Attention & Memory

Concentration		Recommendations
10	Serial 7's	Provide activities and environment that encourages maximum concentration span
9	Serial 3's	Simplify structure of activity/conversation
8	Months of the year backwards	Paraphrase conversation
7	Days of the week backwards	Prompt to initiate and sustain actions
6	Count down 93-85	Lots of short activities rather than one long one Provide tasks that have meaning and purpose for the person
5	Count down 10-1	Variety of activity utilising different cognitive/motor skills Prompt
4	Months of the 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 the week forwards	Reduce competing sensory stimuli Provide familiar environment and activities
2	Count 1-10	Structure task to be completed within concentration span
1	Actual counting (10)	Activities and repetitive actions Provide activities that are important to the person Utilise concrete activity that provides visual prompts
0		Don't assume that the person cannot focus on meaningful tasks

Domain – Orientation, Attention & Memory

Name:	**REGISTRATION**
Purpose:	Ability to recognise and retain information within 5 minute span Links with looking and gnosia
Measurement:	Visual presentation of up to five common objects and asking for a response after their removal
Confounding factors:	Visual impairment Agnosia Word finding Figure/ground Concentration span Primary language
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

Domain – Orientation, Attention & Memory

Registration		Recommendations
10	Five items	Provide opportunities to register / gather / share information
8	Four items	Rehearse actions Refresh the person's memory by retelling recent/important events Allow time Utilise lists Cue
6	Three items	Repeat instructions Work within limitations Reassure the person Provide memory cues, e.g. photos, diary
4	Two items	Listen out for paraphasias Prompt Tell stories of recent events
2	One item	Introduce yourself and purpose each time you meet Inform the person
0		Don't assume the person will register nothing

Domain – Orientation, Attention & Memory

Name:	**RECALL**
Purpose:	Ascertain ability to recall information presented in previous five minutes
Measurement:	Recall of up to five items presented for registration subscale
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 Use of memory strategies Ability to develop relationships with the environment Ability to maintain and develop lasting social relationships

Domain – Orientation, Attention & Memory

Recall		Recommendations
10	All five items	Presentation of information (visual, sound, tactile, auditory) to enhance registration, recognition and recall
8	Any four	Use memory cues e.g. 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	One item	Create positive emotional overtones to enhance memory Use personal items / family members
0	No items	The person may remember very important things

Domain – Orientation, Attention & Memory

Name:	**PERSONAL MEMORY**
Purpose:	Ability to recall pertinent aspects of the person's past
Measurement:	Series of questions related to personal past experiences
Confounding factors:	Head injury Person's past experience e.g. post traumatic stress disorder Cultural background Psychosis Depression Sense of privacy Language deficit
Functional implications:	Self-concept, self-image, role awareness Sense of security and belonging Re-orientation abilities Knowledge of past medical and social history Awareness of loss and emotional response to loss

Domain – Orientation, Attention & Memory

Personal Memory		Recommendations
10	Current finances	Provide opportunities and cueing to allow memories to surface
8	Current family	Allow time for memories to surface Encourage the sharing of stories Record for posterity
6	Early adulthood	Use of photographs, objects, etc. to cue memory
4	Childhood	Reminiscence groups/individual Not all memories relate to words – engender a feeling
2	Place of birth	Gain / seek knowledge from family / significant others
0		Don't assume that a person has no memories because they have lost the words to express them

N. B. Don't assume that all memories and past experiences were happy

Domain – Orientation, Attention & Memory

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

Domain – Orientation, Attention & Memory

Orientation		Recommendations
10	Date	Provide opportunity for the person to experience the present in a meaningful way Provide normal orienting cues e.g. calendars, clocks
8	Month	Provide orienting information as appropriate: verbally and visually Tell the person appropriate orienting information
6	Year of birth	Use reminiscence to remind the 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
0		Don't assume that the person can remember nothing

Domain – Calculation

Name:	CALCULATION
Purpose:	Ability to understand and manipulate numbers and other abstract concepts Links with similarities.
Measurement:	Series of graded mathematical calculations
Confounding factors:	Visual / auditory impairment Educational level Ability to conceptualise numbers 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

Domain – Calculation

Orientation		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 e.g. use of multiple senses, real objects 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
0		Rote learning related to numbers may be intact

Domain – Language

Name:	**FOLLOWING INSTRUCTIONS**
Purpose:	Ascertain the person's ability to comprehend written and verbal instructions
Measurement:	Response to presentation of instructions in verbal and written form in English
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 of person to respond in social surroundings

Ability to understand humour, sarcasm, innuendo

Competency to sign legal documents

Guardianship and Administration issues |

Domain – Language

Following Instructions	Recommendations
Verbal	
5 Close eyes, 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
0	Use tone of voice to indicate direction, etc.
Written	
5 Close eyes, 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
0	Do not assume the person cannot interpret other aspects within the environment

Domain – Language

Name:	**WORD FINDING**
Purpose:	Determine ability to name objects/parts of objects Links with ideational praxis
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 use / carry out instructions Figure-ground may impair recognition Visual impairment Speech difficulties e.g. stuttering Use of synonyms or slang
Functional implications:	Ability to communicate needs Ability to carry out instructions Presence of paraphasias Presence of anomia Need for translator

Domain – Language

Word Finding		Recommendations
10	No errors	Provide opportunity to converse with people with equal or better language abilities
9	Anomia – parts	Offer names/words Explore use of primary language
8	Anomia – objects	Always check inability to name with ability to recognise the right word both verbally and written, or ability to use the object 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	Semantic error – parts	Use demonstration; show / point Provide familiar and meaningful objects
4	Semantic error – objects	Reframe activities that require naming
3	Phonemic error - parts	Try to use other sensory modalities e.g. touch Offer synonyms or slang words to check meaning
2	Phonemic error - objects	Listen for paraphasias Look for contextual clues to understand message Listen for emotional content
1	Jargon	Provide appropriate sensory input
0		Do not assume person cannot understand what is said to them or has nothing important to say

Domain – Language

Name:	**READING**
Purpose:	Ascertain ability to read the written word. Links with looking, following instructions (written)
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 activities Use of notes as a memory aid Competency to sign documents Connection with family and friends

Domain – Language

Reading		Recommendations
10	Paragraph	Provide opportunity to read material of individual interest Opportunities to discuss contents, etc.
8	Paragraph with four errors or less	Check for understanding of written material e.g. medication, legal documents
6	Sentence	Presentation of written material at appropriate level Monitor use of notes as a memory aid
4	Word	Monitor use of word signs/symbols
2	Letter	Provide non-verbal cues e.g. pictures, gestures
0		Don't assume that because a person cannot read that they won't enjoy looking at and handling a magazine or book

Domain – Language

Name:	**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 Physical impairment e.g. stroke, arthritis, Parkinson's disease
Functional implications:	Fine motor coordination Eye/hand coordination Personal memory cues Ability to communicate Ability to express wishes

Domain – Language

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 or substitution	Look for paraphasias, etc. and interpret accordingly
1 Scribble	Seek other confirmation of messages
0	Facilitate alternative means of communication
Content	
5 No error	Encourage opportunity to communicate with wider community by writing letters/cards
4 Word substitution	Check competence to sign legal documents etc. Simplify written opportunity Assist with meaningful writing tasks, e.g. Christmas and Birthday 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
0	Check the person's comprehension of what is written

N.B. Ability to sign one's name does not imply understanding of the context or competency to make decisions.

Domain – Language

Name:	**SIMILARITIES**
Purpose:	Ability to reason and deduce abstract information
Measurement:	Presentation of familiar cues graded from simple to complex concepts
Confounding factors:	Auditory deficit Language deficit Memory Visualisation Concentration Primary language Expressive dysphasia Acquired brain injury
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

Domain – Language

Similarities		Recommendations
10	Aeroplane – bicycle	Provide opportunities to discuss and problem solve abstract ideas
8	Gun – knife	Use step by step cause and effect reasoning

Check competency to make decisions |
| 6 | Cat – pig | Break down choices into steps |
| 4 | Pants/trousers – dress | Use binary choices

Present concrete cue and clues |
| 2 | Orange - banana | Simplify requests |
| 0 | | Person may know there is a similarity but not be able to find the words to explain

The person may know very clearly what they don't want |

Domain – Praxis

Name:	**IDEOMOTOR PRAXIS**
Purpose:	Ascertain ability to plan and sequence voluntary motor movements. Links with gnosia
Measurement:	Ability to copy patterns of demonstrated body movements
Confounding factors:	Visual impairment Right / left discrimination Paresis Hand-eye coordination Ideational apraxia Agnosia Physical deformity
Functional implications:	Ability to carry out unfamiliar actions Ability to perform familiar everyday activities Ability to follow demonstrations Level and type of prompting required

Domain – Praxis

Ideomotor Praxis		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 instructions Make suggestions
8	Double fingers	Give verbal instructions 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 Wait for spontaneous reactions
3	Wave	Utilise familiar movement patterns Utilise indirect verbal prompts
2	Raise hands	Utilise familiar stereotyped movements
1	Open mouth	Utilise proprioceptive neuromuscular facilitating (PNF) patterns
0		Elicit visual or tactile rooting reflexes to enable feeding. Provide opportunities for self-initiated movement

Domain – Praxis

Name:	**IDEATIONAL PRAXIS**
Purpose:	Ascertain person's ability to conceptualise and understand the use of, and manipulate objects Establish level of abstract thought Links with ideomotor praxis, gnosia and similarities.
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 Understanding what is involved in carrying out familiar tasks Formulating, planning and sequencing familiar tasks Ability to identify mistakes and solve problems

Domain – Praxis

Ideational Praxis		Recommendations
10	Imaginary toothbrush and toothpaste	Provide opportunity for person to utilise their ability to visualise and imagine
9	Imaginary jar and lid	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	Toothbrush and toothpaste	Demonstrate required action using real objects Use touch
5	Jar and lid	Provide environmental cues e.g. 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 with a clear connection between object and use
2	Put on spectacles	Physically initiate task
1	Open door	Utilise previously learnt patterns Provide opportunities
0		Do not assume the person can do nothing

Domain – Spatial Abilities

Name:	**DRAWING**
Purpose:	Ascertain ability to interpret and copy relationships in space. Links with construction, writing and similarities.
Measurement:	Copy a series of geometric line drawings
Confounding factors:	Visual impairment Educational skills Fine motor skills Concentration span Medication Hand-eye coordination Ability to initiate task Physical impairment e.g. stroke, arthritis, Parkinson's disease
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

Domain – Spatial Abilities

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 tasks by reducing the number of steps and / or objects
7	Circle and square	Provide real objects as examples Describe and explain the environment Step by step instructions
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
0		The person may still be able to sign their name.

Domain – Spatial Abilities

Name:	**CONSTRUCTION**
Purpose:	Determine ability to interpret and manipulate objects in a purposeful manner Links with drawing, ideomotor praxis.
Measurement:	Copying block designs using two colours and right angles and 45° angles
Confounding factors:	Visual or auditory deficit Acquired brain injury 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

Domain – Spatial Abilities

Construction		Recommendations
10	Four blocks diagonal	Provide opportunities 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 instructions Provide fail-safe options Provide tasks that require repetitive actions
2	Match circle	Minimise choices / options Careful use of colour to minimise confusion Allow time
0		Do not assume that the person cannot do complicated but familiar tasks

Domain – Movement

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

Domain – Movement

	Primitive Reflexes	Recommendations
10	None	Provide objects within the environment to see, touch, smell, taste, hear
8	Palmar grasp reflex	Avoid stimulating the reflex actions during moving and handling Provide reassurance
6	Snout reflex	Utilise objects that won't harm the person Reduce unnecessary multiple stimuli Use therapeutic touch Initiate palliative care
4	Visual rooting 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	Tactile rooting 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

Domain – Movement

Name:	**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 / anxiety
	Physical disability
Functional implications:	Responsiveness to environment
	Level of care needs
	Ability to move within the environment
	Safety / falls prevention

Domain – Movement

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 functional activities Falls prevention measures
5	Contracture of legs	Relaxation techniques Use of patterns of movement 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
0		Maintain frequent human contact and loving touch

INTERPRETING THE RESULTS OF THE HDS-R

To use the HDS-R 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. However, 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 work 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 to most family members or carers 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 various pieces of information.

Abilities and Limitations

Name:

Date: 55

Information based on:

	Abilities	Limitations

General health and well-being:
 	
    Physical
    Emotional
    Spiritual
    Competency / Legal		

Environment:
 	
    Physical
    Social		

Communication:
 	
    Word
    Voice
    Body
    Receptive
    Expressive
    Language		

Activity:
 	
    24 hours
    Past, present, future
    Work, leisure, rest, self-care
    Physical, social, cognitive, spiritual, emotional		

Problems and Possibilities

The next step is to 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.

56

	Possibilities	Limitations
Work		
Leisure		
Self care		
Rest		

Problems and Possibilities

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
General health and well-being	58	
Environment		
Communication		
Activity		

	To enhance abilities	To support limitations

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 the Possibility Oriented Approach 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 an 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	Follows what is happening in the environment
Makes eye contact	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

Beauchamp, T. L., & Childress, J. F. (2013). *Principles of Biomedical Ethics* (7th Edition ed.). New York: Oxford University Press.

Cole, M., Dastoor, D. (2015) *Hierarchic Dementia Scale—revised: instruction manual.* Bentley, Western Australia: Dementia Training Study Centre.

Kitwood, T. M. (1997). *Dementia reconsidered :the person comes first* Buckingham, England: Open University Press.

Mace, N. L. (1999). *The 36-hour day : a family guide to caring for persons with Alzheimer disease, related dementing illnesses, and memory loss in later life* (3rd ed.. ed.). Baltimore, MD: Johns Hopkins University Press.