

National Health and Hospital Reform Commission for Your Consideration

A different approach to assessing and managing people with cognitive deficits

Submitted by

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Description: The strong theory base for the assessment and management of people with deficits in functional cognition was developed in the 1960's by Claudia Allen, MA, OTR, FAOTA, California, USA. Since the 1960's the theory of cognitive disabilities and the clinical application has been expanded by therapists working worldwide.

Purpose: To obtain a measure of global cognitive processing capacities, learning potential, and performance abilities and to detect unrecognized or suspected problems related to functional performance. Though a person may be assessed as having a focal cognitive deficit there can be an over-riding global cognitive deficit.

Construct being measured: "Functional cognition" encompasses functional performance abilities and global cognitive processing capacities. It incorporates the complex, dynamic interplay between:-

- A person's information processing abilities, occupational performance skills, values and interests;
- The increasingly complex motor, perceptual and cognitive activity demands of visual-motor tasks;
- Feedback from performance of these tasks in context.

Intended Use:

- Screen and assess deficits in functional cognition by using standardized screening tool, assessment and through clinical observations, which are grounded in the cognitive disability model and theory. The scores obtained are interpreted using the Allen's cognitive scale of levels and modes of performance, which appear along the continuum of a 25 point scale ranging from level.mode 1.0 to 6.0.
- Develop reports, care plans, interventions and programs to assist formal and informal caregivers as to how they should approach, speak with and work with people with cognitive disabilities.
- Promote a person's 'best ability to function' and allow people to live in the least restrictive environment where they are guided in occupational-based interventions at the level of activity demands, performance skills, and occupations based on the Occupational Therapy Practice Framework and in line with the International Classification of Function (ICF) (WHO) – 2001.

Intended populations: Originally developed for use with adults with psychiatric disorders and for adults with dementia. The cognitive disability theory and model of practice is recommended for use with populations whose patterns of functional behaviour appear to reflect disruptions in global cognitive processing capacities as described by the cognitive disabilities model. The professional literature describes applications with adolescents with psychiatric problems and with adults who have experienced a traumatic brain injury or a cerebral vascular accident.

Who may administer, score and interpret scores: Occupational Therapists or other health professionals (Physiotherapists, Speech Pathologists, Psychologists, and Registered Nurses and Medical Practitioners), who have experience working with persons' with temporary or permanent cognitive impairments, training in the use of standardized assessments, and training or mentoring in use of the cognitive disabilities model and related assessments.

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Further Explanations

Functional Cognition: The theory is concerned with learning and what happens to learning when disease processes of the brain cause global cognitive restrictions. When this occurs an individual's ability to do activities safely is also restricted. The theory identifies these restrictions as Cognitive Levels, which, in turn, measures one's capacity to learn to adapt to a disability.

The measures of the construct of functional cognition are defined as a "restriction in sensorimotor actions originating in the physical or chemical structures of the brain and producing observable and assessable limitations in routine task behavior."

Therefore, within the continuum of functional cognition, a person is able to notice and utilize sensory information in greater volume and sensitivity in the higher level.modes of performance. A person assessed at functioning at level.mode 5.2 will be more successful in the complex environmental and occupational interactions of a shopping mall, as compared to the person functioning at level.mode 4.2.

Cognitive Levels

- A measure of competence as observed during task performance;
- Offer a method to describe varying cognitive abilities with functional implications;
- A scale that represents an increasing ability to notice and respond to increasingly complex demands during task performance, within broader and more variable contexts – internal and external;
- Modes of performance describes a score and the patterns of functional behaviour

Progression of Modes of Performance

1.0	Withdrawal from stimuli	3.6	Notes effects of actions on objects
1.2	Respond to stimuli	3.8	Use all objects & senses completion
1.4	Locates Stimuli	4.0	Sequence self thru steps of activity
1.6	Moving in bed	4.2	Differentiate parts of an activity
1.8	Raise body parts	4.4	Complete a goal
2.0	Overcome gravity	4.6	Scans the Environment
2.2	Stand and use righting reactions	4.8	Memorize new steps
2.4	Walk	5.0	Learn to improve the effects of action
2.6	Walk to identified location	5.2	Improve the fine details of actions
2.8	Use railing & grab bar for support	5.4	Engage in self-directed learning
3.0	Grasps objects	5.6	Consider social standards
3.2	Distinguish between objects (sorts)	5.8	Consult with other people
3.4	Sustains actions on objects (repeats)	6.0	Planned Actions

Not until there is a sudden change in routine does the brain switch to a global and exploratory form of reaction.

When the exploratory form of reaction occurs, the brain actively suppresses well-learnt skills, habits and routines to allow the prefrontal lobes to mount exploratory responses

Working Memory allows people to comprehend and mentally represent their immediate environment and to:

- retain information about immediate past experience,
- support the acquisition of new knowledge,

- hold and manipulate images,
- solve problems, and
- formulate, relate, and act on current goals

- Skarda & Freeman (1990); Damasio (2000).

Procedural Memory - The template of procedural memory can be a habit, routine or well learnt skill producing the same output as if it is going through every step of the consciously aware learning phase
- Baars (1999).

- As adult people age, they draw more and more upon the knowledge and experiences they have accumulated over a lifetime;
- The greater the aged person's experiences in life, the greater their store of knowledge and wisdom;
- An episode of illness or injury can result in an aged person experiencing a significant diminishing of the ability to adapt and modify their thinking to the continual changes affecting their lives;
- Young adults do not have this store of knowledge and experiences and if they are below the ability to problem solving, it is biologically impossible for them to learn. Meaning they cannot be taught to use medication, manage their own money; safely drive motorized vehicles or use electrical appliances or tools.

Realistic Goals that can be accomplished:-

- **Adapt** the human and non-human environment to match remaining functional cognitive abilities e.g. communication style, living conditions and individual daily activities;
- **Advise** caregivers of the person's 'best ability to function' and what type of social assistance including cues and prompts optimally match their 'best ability to function';
- **Assess** 'At risk' situations that may result in secondary injuries;
- **Encourage** the need to work with existing personal habits, rituals and well learnt skills and set-up activities that can be accomplished.
- **Understand** that bodily behaviour (emotional and physical), which occurs when a person is pushed beyond their brain's ability to flex, which elicits an '**acting out**' of unacceptable emotional or physical behaviour can be managed by adapting the environment, advising caregivers and preventing secondary complications. (Understand that the necessity to preserve 'self' dominates a person's thoughts and actions and is seen as a result of underlying biological characteristics, which restrict body behaviour);
- **Put into effect** with formal and informal caregivers that they can't "teach" compensatory or new strategies.

Benefits

- Everyone shares the same language;
- The person/patient/client/resident is universally understood and valued for the person they are;
- Family members become supportive/active members of the program;
- Improved patient outcomes quality indicators;
- Improved staff satisfaction;
- Specialty programs can be developed and resources used efficiently;
- Supports culture change initiatives.

Benefits to the Government – Huge financial savings – Why?

When a person is assessed below the ability to problem solve, which many young people with Schizophrenia are assessed at functioning, older adults who have been assessed with different forms of dementia or others who have experienced a CVA, numerous TIA's that leave them with limited working memory and people with cognitive deficits following MVA or other forms of internal and external head injuries, they are **not able to learn** to use a variety of sensory or adaptive equipment.

Presently this equipment is provided when requested by hospitals, residential care facilities or by families. **No** functional cognitive assessment is requested before this equipment is given to the patient/client/resident who will be shown how to use the equipment one or twice.

A huge amount of money is wasted on providing the following when a person is below the cognitive ability to problem solve:-

- **Audiology** assessment and hearing aids, which can never be used, for as far as the person is concerned they do not exist (out of sight out of mind);
- **Optometry** – providing eye glasses, which are discarded and not used, in fact, in some care establishments there can be a drawer in an office that is just used to hold an array of eye glasses. Residents are also wearing other people's glasses;
- **Dentistry** – dentures discarded as the person cannot learn to use them nor can they preserve with using new dentures, as they no longer can understand the concept of time or judge the intended breaking in period to adjust;
- **Adaptive equipment** is supplied on request by staff in residential care facilities at a time when people are no longer able to cognitively able to control their trunk muscles causing them to fall, once this occurs a walking frame will be ordered. Many people supplied with a new piece of equipment to use are well below the ability to learn to use it correctly or safely;
- **Incontinent devices** are trialed and discarded;
- **Personal alarms**, which do not exist for them if they are not in clear sight;
- **Medical machines** to take blood pressure and test for diabetics.

Further money is wasted on programs that are designed to:-

- Change problematic behavior;
- Boost a 'Healthy Brain' by using programs that are language or number based;
- Teach money management;
- Teach medication management;
- Teach how to cook meals and plan a menu;
- Teach how to shop successfully.

All of the above and other programs require the ability to use complex cognitive skills. Realistically the only way to assist people with moderate to severe deficits in functional cognition is to socially assist them either physically offering to escort them or by using forms of communication including 'scaffolding' to match their assessed cognitive level.

Where can this theory and assessments be successfully used?

- **Acute hospitals** to assess a person's readiness for discharge; pre-operative assessment to gauge ability to follow hip and knee replacement precautions and adhere to safety precautions following numerous other types of operations e.g. triple bypass; ability to self medicate and follow procedures e.g. diabetic; suitability to apply and manage splints; learn to use artificial limbs; assess suitability to manage adaptive equipment; assess suitability to manage complicated machinery to relieve severe pain, urinary dialysis and manage stomach posts. As well the assessment can be used as a measure to gauge response to medication or medication change.
- Rehabilitation units;
- All mental health facilities;
- Drug and alcohol units;
- All aged care units and facilities;
- Suitability for determining independent living in state housing;

- Safety and needs of homeless people;
- Adolescent units;
- Intellectual disability facilities;
- Head injury units;
- Places of employment.

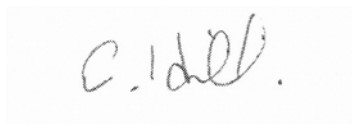
Overall Benefit – once a person's cognitive level is determined all healthcare professionals, administrators and formal and informal caregivers are aware as to how best to assist the person in their care; and how to maximize the social assistance required to intervene with an appropriate response or adaptation when required. Seamless interventions for each person are maintained across government and non-government organisations and informal caregivers are encouraged to follow through when people return to their place of residence when living in the community. Uniform support services are established with each agency being aware of the care plan based on what a person can realistically do.

Compiled and expanded by



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See Appendix 1

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In a rural remote center as a Director of Nursing and a Registered Nurse, along with an occupational therapist, the Allen's Cognitive assessment tool was used in a number of situations in relation to the provision of care provided by this Domiciliary Nursing service. Where the families or significant others are the main care givers the domiciliary service provided support, education, advise, equipment, and respite care to assist caregivers, ease the load and prevent carer burnout, This assessment process was also able to detail a care plan.

We are continually made aware that the services, staff and money is dwindling and is under extreme pressure as the population ages. As a result, a large number of families take on the role of care provider to palliative family members, CVA parents/spouse, brain damaged children, mentally impaired and a wide range of other injured, sick or dying family members.

The Allen's assessment clearly defines the deficits in the patients functional ability to perform activities of daily living and can show clearly in a easy to understand, no frills approach where and when interventions are needed to protect the carer or the client and more importantly give the carer a greater understanding of how to assist the client in retaining as much independence as possible for as long as possible.

A user-friendly care plan can be constructed with the client/patient and carers, to address any given health deficient and to provide a continuum of care specifically designed to meet that patient/client's needs.

In a facility this approach can be used to clearly show the level of care a client/resident requires to be maintained at a standard which would be acceptable at this time in this country, the nursing time needed during a 24 hour period which in turn can equate to a dollar value and the staffing required to provide the care.

In a more isolated situation where a carer and the client are in need of follow-up or input from another professional regarding levels of care, an assessment can be videoed and sent via internet. A care plan can be implemented or modified depending on the nursing needs of the client and or the ability of the carer to provide the care.

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