Neuropsychological assessment, rehabilitation strategies and vascular dementia

Dr Sylvia Dillon
Neuropsychological Assessment of Dementia Informing Cognitive Rehabilitation.

Sylvia C Dillon C.Psychol
Clinical Neuropsychologist
BPS Division of Neuropsychology Conference 28 11 2014
Cognitive Rehabilitation

- Re-establish or Restore cognitive function related behaviours
- Establish Compensatory cognitive function and related behaviours
- Dementia more suited to Compensatory cognitive rehabilitation
Individual or Group Rehabilitation

- **Brain Injury** – individual and some group work
- **Stroke** – some individual, most group intervention
- **Vascular Dementia** – group intervention
- **Alzheimer’s Dementia** – group intervention
- **Parkinson Disease related dementia** – group or none
Group Rehabilitation Activities

- **Stroke** – psycho-educational groups. Dealing with mobility, speech, mood, fatigue, grief and loss.


- **Carers** - psycho-educational groups. Information on services, general memory strategies and emotional demands.
Vascular Dementia

More likely to be focal damage, rather than global

- Related to Stroke
- Multi-infarct
- TIA
- Aneurism
- Small vessel cerebral disease
- Blood Pressure
Individual Cognitive Assessment

Information needed

- **History** of Problems,
- **Reported Problems**
- **Observations** during sessions
- **Screening Tests**
- **Neuropsychological Tests**
- **Interpretation, effect on Activities of Daily Living**
Individual cognitive rehabilitation

- Physical and emotional **health**
- Medication and leisure **drugs**
- Previous **Education**
- Previous and present **Occupations**
- Leisure **interests**
- **Support** Systems
- **Relevant History**, childhood experiences, trauma
General Rehabilitation

- Understanding normal dementia
- Use compensating strategies to get around problems – diaries, calendars, mobile phones
- Focus on what can still do, maybe in a different way – use taxi not driving
- Make tasks more manageable.
- Specific issues individual therapy
Individual Strengths and Weakness

Spared or impaired cognitive abilities

In a battery note the strengths as well as the weakness of each score on each separate test.

These strengths can form the basis for cognitive rehabilitation.

Individual tests can provide extra qualitative information more than just the summed score.
Strengths and weakness

- On Batteries i.e.
- R-BANS
- WMS –III
- BMIPB
- On Tests with many components i.e.
- BADS
Example R-BANS domains

- **Immediate Memory** – List, Story
- **Visuo-spatial** – Figure copy, Line orientation
- **Language** – Picture Naming, Semantic fluency
- **Attention** – Digit Span, Coding
- **Delayed Memory** – List recall, Recognition, Story memory and Figure recall
R-BANS profile

- Focus is on Low scores
- Attention and Visuo-spatial may be low
- Within norm or higher than low scores
- Language – Picture naming and Semantic fluency
- Immediate Memory – List, Story recall
- Delayed Memory
Qualitative Questions

- How **aware** is the client of their problems?
- **Executive** problems? Often not aware of them.
- **Initiation** – is this related to “motivation” and ADLs
- Not completing a task completely or correctly – a **rough outline** – is this related to Simple but important ADLs not done.
- Can they maintain **attention**?
- **Fatigue** – during test, how does this relate to ADLs?
Qualitative Useful Tests

- **BMIPB List learning** – predominant primacy and recency effect? Write down order that words recalled.

- **BMIPB Story recall**, also primacy and recency effect, as well as outline, little detail. Will this reflect everyday speech?

- **BADS – Action Test**. Initiation – how do they go about the task?

- **BADS – Zoo Map 2** How do they follow rules?

- **Verbal fluency – categories**, what happens when they shift set?

- **WASI – Block Design** - Time, wanting to complete, speed of processing
Cognitive Abilities and Activities of Daily Living

- Scores on Neuropsychological Tests
- Suggest Cognitive Abilities, impaired or spared?
- Which Activities of Daily Living (ADLs) use which Cognitive Abilities?
- Cognitive Abilities spared how can they be used in Compensatory ways to assist ADLs
Single-cases Tests and ADLs

- **BMIPB – Story Recall** – aim to assess Verbal Memory. I find it can give an indication of how everyday speech is processed. If primacy predominates, the initial part of conversation will be processed, not the rest.

- **BADS – Action Program Test** – aim to develop a plan to solve a problem. I find that those who do not know how to start the task and have to be shown often have problems with initiation/motivation on ADL’s.

- **WASI – Block Design, BADS Zoo Map 2**, concentration, going over time boundaries, wanting to complete, enjoyment at completion. I find that if client has done jigsaws will enjoy doing them again.
Value of Experience

- Frequent use of test, get a feel for its characteristics.
- **Observation** on how client goes about it gives much more information.
- If give these tasks to assistants and trainees how do you get this information?
Vascular Dementia

- Cognitive impairments after events of falling and feeling tired.
- Not finishing ADLs. Prospective memory poor.
- Lack of completion. Lack of satisfaction. Complaining, angry, always being told was “wrong”
- LTM, episodic moderate, semantic good. Sport – pub quiz!
Individual Cognitive rehabilitation

BMIPB  Figure Recall  v Story Recall.  Visual memory better.

- **BADS Dys-executive** – borderline range.

- **BADS Action program** not able to initiate. Didn’t know where to start.

- **BADS Zoo Map 2.** Took time but said “enjoyed it”, completion, satisfaction, got it right. Conversation followed about wooden jigsaws, with mother, wartime.

- **Rehabilitation suggestions.**

- **Wife to start ADLs** task, make it visual. Donald to continue and finish.

- **Jigsaws.** Not done since childhood. 1000 pieces, with daughter helping with outline, Donald completed. Satisfaction. Kept record of what done, worked through Gibsons catalogue.
Cognitive rehabilitation

- **Short Written reminders** of issues discussed in each session including personal emotional issues as well as how ADLs can be maintained.

- **Assessment** in the usual way.

- A separate Report of **Individual Rehabilitation suggestions**.
References

- **Sunderland A (1992)** Memory impairment after stroke and in Alzheimer’s Disease: Assessment and Adaptation BPS PSIGE Conference 1992
- **Clare L (2002)** Cognitive rehabilitation in early-stage dementia: Evidence Practice and Future Directions. BPS PSIGE Conference 2002
- **Barnes J (2013)** Behavioural coping patterns in Parkinson’s patients with visual hallucinations BPS Jnl of Neuropsychology 7 2 326-334
- **Doherr E. (2013)** Clinical tools to enhance the effectiveness of therapeutic work with people with brain injury. BPS CPF248 Aug 2013 20-24