Belfast Health and Social Care Trust

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The Home-based Memory Rehabilitation Programme

An Occupational Therapy-led Programme

11th International Dementia Conference,
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respect & dignity openness & trust leading edge learning & development accountability

MEMORY

- ‘ Life is all memory, except for the one present moment that goes by you so quickly you hardly catch it going’ Tennessee Williams

Epidemiology

- 850,000 in UK
- 670,000 primary caregivers (non-paid)
- £26.3 billion per year (Alzheimer's Society, 2014)
- £32,259 per person with dementia
- 130 million cases worldwide by 2050 (Ahmadi-Abhari et al. 2017; Alzheimer's Disease International, 2015)
- No cure; 99.6% drug trial failure rate to date

The need to develop goal-orientated, non-pharmacological Cognitive Rehabilitation Programmes cannot be underestimated

Pay attention to Attention

- Is the basis of **all** information processing in the brain, operating on different levels (Hierarchy). Controlled by the Central Executive
- A cornerstone for all cognitive functioning
- Selects the important features in the environment and ignores all the others whilst continuously monitoring the situation for change
- In the early stages of Memory Rehabilitation, attention is a priority because deficits impact upon all cognitive function (Grieve and Gnanasekaran, 2008; Maskill and Tempest, 2017)

- Practising and rehearsing a task leads to more stored information and this facilitates retrieval with reduced reliance on attention

- Well-learnt activities carried out on "Autopilot"

"Practice Makes Perfect"

Distractors to Attention

- Pain
- Bereavement
- Depression
- Apathy
- Frustration/Agitation
- Anxiety/Stress
- Alcohol/Medication/Poly-pharmacy
- Sleep deprivation
- FOMO/Social Media

All may impact on memory function and can potentially lead to incorrect diagnosis

Compensation for Attentional Deficits

- Ensure good hearing and vision
- Allow person with dementia to maintain sustained attention and complete task by not interrupting
- Avoid multi-tasking – do one thing at a time
- Caregiver Education – Never guess! – Error Avoidance
- Adapt the home environment to reduce distraction (TV!)

Cognitive Rehabilitation

- Defined as an individualised approach which should focus on real-life, functional problems. It should address associated problems such as mood and behavioural difficulties and involve relatives and caregivers. It must be goal-orientated using evidence-based methods (Wilson, 2002; Clare, 2017)

- May be augmented by additional resources such as assistive technology

- Be person-centred (Kitwood, 1997)

- Memory Rehabilitation is part of Cognitive Rehabilitation (Wilson et al. 1997)

- CR approach developed mainly through work with persons with acquired brain injury but has been found to be equally appropriate for rehabilitation of memory deficits in early AD (Clare et al. 2000)

- Memory rehabilitation taps into a 'partially intact learning capacity' (Bird, 2001) which forms our cognitive reserve. Engagement in problem solving activities in early life has the largest association with building up cognitive reserve (Staff et al. 2018).
- NICE defines CR as 'Improving or maintaining functioning in everyday life, building on the person's strengths and finding ways to compensate for impairments, and supporting independence. NICE, 2018.

Memory Rehabilitation

Core Principles:

Compensation: – compensation strategies include:

- Use of external memory aids (Aides Memoir) which act as Cognitive Prosthetics

Environmental Adaptation:

- Minor adaptations to the home environment to support these strategies (Wilson and Hughes, 1997)

Compensation

- In a recent study of compensation strategies in older adults, it was found that greater frequency of compensation strategy use was associated with higher levels of independence in everyday function, even after accounting for cognition (Farias et al. 2018)

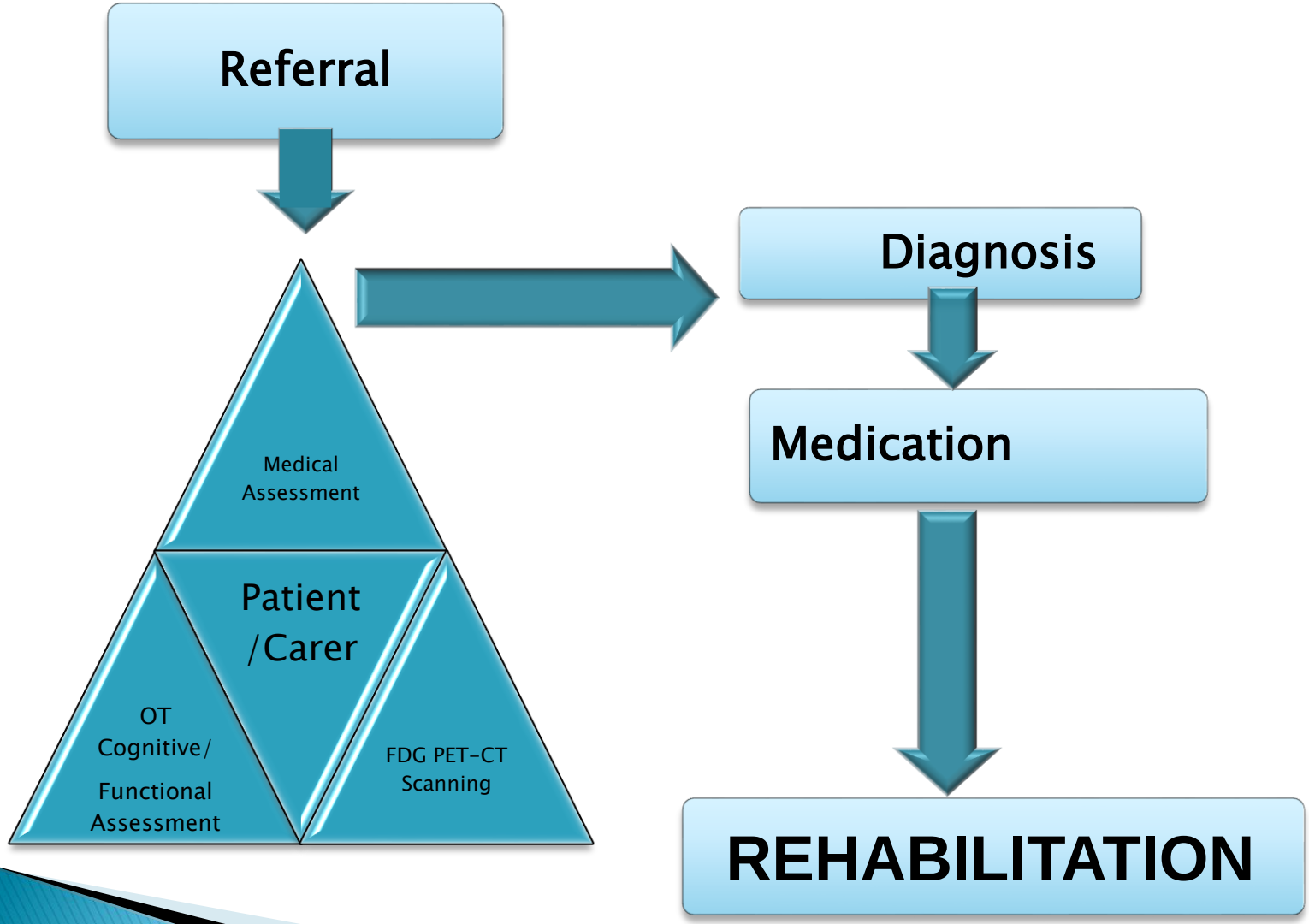
- Strategies increase resilience

The Home-based Memory Rehabilitation Programme-HBMRP

Background

- Memory Clinic established in 1994
- For people experiencing memory difficulties in everyday life
- Centre of excellence
- No Cognitive Rehabilitation
- RCT of effectiveness of HBMRP (UU, 2006)
- Launch of HBMRP as a clinical service, January 2007

Care Pathway



Aims of HBMRP

- To reduce the impact of everyday memory difficulties
- Maintain independence
- Restore self-confidence
- Increase resilience
- Reduce caregiver burden

Criteria for Participation in HBMRP

- Lives in the Belfast Health and Social Care Trust catchment area
- ≥ $^{20}/_{30}$ in MMSE
- ≥ $^{70}/_{100}$ in Addenbrook's 111
- No severe psychosis

Cognitive Deficits in Early-stage Dementia

- Difficulties with Episodic Memory
  - disorientation in time
  - confabulation (altered reality)

- Difficulties with Complex Attention
  - leads to task failure
  - loss of ability to multi-task
  - difficulties with IADLs
  - loss of self confidence

- Behavioural Changes
  - apathy
  - loss of ‘va va voom’
  - agitation
  - increased caregiver burden

Belfast Health and Social Care Trust

Home-based Memory Rehabilitation Programme for mild, early-stage Alzheimer's disease and other Dementias

- 1 visit per week for 5-6 weeks, as required
- Home-based
- Customised
- Involvement of caregiver, if possible
- Compensation strategies
- Environmental adaptation
- On-going support

HBMRP – Compensation Strategies

- **Weeks 1&2 – Retrospective Memory**
  - Orientation Clock
  - Memory Book (A5 wire-backed)
  - Customised Medication Checklist
  - Tip sheet- 'Remember where you put things'

Memory Book

- Supports Episodic Memory
- Supports Orientation for Time and an appreciation of the passage of time (Temporal awareness)
- Reduces Confabulation

MEDICATION CHECKLIST

Week beginning

/ /

TIME	DRUG	DOSAGE	MON	TUE	WED	THUR	FRI	SAT	SUN
After Breakfast	Esomeprazole	1 Tablet 20mg							
	Memantine (Ebixa)	1 Tablet 20mg							
	Bisoprolol Fumarate	1 Tablet 2.5 mg							
	Furosemide	1 tablet 20 mg							
	Galantamine (Lotprosin XL 24)	1 Capsule 24 mg							
	Dabigatran Etexilate (Pradaxa)	1 Capsule 110 mg							
	Fybogel	1 Sachet							
After Supper	Dabigatran Etexilate (Pradaxa)	1 Capsule 110 mg							
	Simvastatin	1 Tablet 20 mg							
Pain Relief	Co-codamol Late evening	2 Tablets 8-500mg							
	Plus Paracetamol **TID**	2 Tablets 500mg							

Every evening cross the day off your calendar

INSTRUCTIONS:	✓	Take each tablet as shown on checklist
TAKE & TICK	✓	Each day tick the box after each tablet is taken

Week 3 – Retrospective Memory

- Prompt card and notebook by the phone
- Pocket notebook
- Banking Prompt Card
- Tip sheet – 'Remember what you have been told'

Prompt Card for taking telephone messages

- Write all messages down
- Tell the caller that you are writing the message down
- Read the message back to the caller

Banking Prompt Card

Do not give your bank details out over the phone!

Weeks 3-5 – Prospective Memory

- Memory Board
- Post-its
- Alarm Clock
- Calendar – boxed
- Daily Schedule
- Safety Checklist (McGrath, 2013)
- Tip sheet – 'Remember what you have to do'

DAILY SCHEDULE

Monday:

Morning:		❑ Take in the KERBIE bins
Afternoon:		❑ Visit Doris in Nursing Home ❑ Go for a walk

Tuesday:

		❑ Do food plan/shopping list

Wednesday:

Morning:		❑ Go to Tesco for shopping
Afternoon:		❑ May go to visit Doris in Nursing Home
Evening:		❑ Put out bins

Thursday:

Morning:		❑ Take in bins ❑ Housework
Afternoon:		❑ May go for a walk

Friday:

Morning:		❑ Housework

Saturday:

Morning:		❑ Go shopping

Sunday:

		❑ May do housework ❑ Rest
Evening:		❑ Speak to Robert on the phone

SAFETY CHECKLIST

Living Room:	❑ Turn off TV with Zapper ❑ Turn off wall switches ❑ Turn off gas fire ❑ Check all candles are blown out
Hall:	❑ Check outside front door is locked ❑ Check the inside door is locked
Kitchen:	❑ Check back door is locked ❑ Check microwave and radio are turned off ❑ Check cooker is off
Each night:	❑ Close all doors in case of fire ❑ Take shoulder bag upstairs to bed

Week 6

- Revision and Consolidation
- Organise first review appointment
- Report to Consultant and other relevant parties on outcome of the HBMRP

Support and Communication

- Three/Six monthly follow-up

- Liaison with:
  - Consultants
  - GPs
  - Community Occupational Therapists
  - Specialist Dementia Nurses
  - Family members
  - CPNs
  - Social Workers
  - Dementia Navigators

Evaluation

Percentage of patients still using compensation strategies at their post MRP reviews

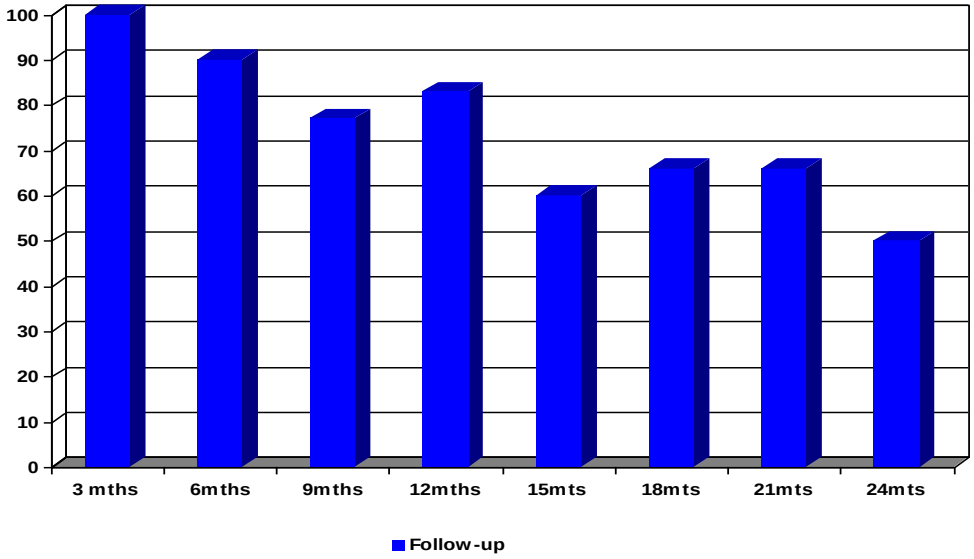


fig. 2

24 Month Audit Results

- Fifty per cent of patients reviewed 24 months following completion of the HBMRP were still using, per day a minimum of three strategies taught to them to compensate for their memory deficits, which demonstrated that new learning took place during the HBMRP and had been maintained over time (McGrath and Passmore, 2009)

- Evidence-base strengthened by work of Alison McKean and Wendy Chambers in Dumfries and Galloway

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