


UNIVERSITY OF EXETER

Rehabilitation and exercise for people with dementia

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A global epidemic

Proportion of the world population aged 60 years or more

Source: UN report World Population Ageing 1950-2050

Dementia

A global epidemic

There is a new case of dementia somewhere on the world every **4 SECONDS**

The number of people in the world with dementia will increase significantly by 2050.

A costly condition

Figure 5.6: Estimated breakdown of costs of dementia for the UK, 2013

Alzheimer's Society 2014

Rehabilitation

“..is a process aiming to restore personal autonomy in those aspects of daily living considered most relevant by patients, service users and their family carers”

Kings Fund 1998

Evidence for exercise?



Lamb et al 2018

Dementia and physical activity (DAPA trial)

494 Community-dwelling people with dementia and carers
 Mean age 77
 39% female
 Mild to moderate dementia

Randomisation

- Exercise programme (n=320): An aerobic and strength exercise programme for four months, with support to increase longer term participation in exercise.
- Usual care (n=165): Usual care only.

Primary outcome: ADAS cog (Alzheimer's disease assessment scale-cognitive). 0-70, low scores better. Clinical significance: 2.45 points.

Baseline score	Means	Adjusted estimates
Baseline	21.4	21.8
After 6 months	22.9	22.4 (P=0.24)
After 12 months	25.2	23.8 (P=0.03)

The exercise programme might worsen cognitive impairment, although the difference is small and of uncertain importance.

Read the full article online: <http://bit.ly/EMidapa>

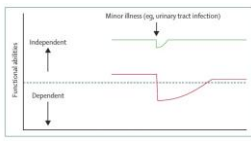
Evidence for exercise: an inconsistent picture?

- Exercise for those with dementia (Forbes 2015)
 - Small improvement in ADLs
 - No benefit on cognition, depression or QoL
- Physical activity in people with dementia (Groot 2015)
 - Improved cognition
- Aerobic activity in those with MCI (Zheng 2016)
 - Improved cognition and memory

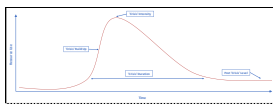
Evidence for other types of exercise/physical activity

- Combined cognitive/physical exercise for those with MCI and dementia (Karssemeijer 2016)
 - Improved cognition, ADLs and mood

When do we see PwD?



Clegg 2013



Thanks to Richard Blackwell, SWAHNS

Patient and carer experiences



He couldn't be mobilised by the two physiotherapists who came to see him once a day for 15 to 20 minutes. Mobilising someone with dementia was not a priority in acute care. Michael never regained his mobility

"The rehab staff said Mum wasn't motivated. I told them that was because she didn't have her slippers. She wouldn't walk in bare feet at home without her slippers so no way would she walk on a hospital floor without them! As soon as she got the slippers, she did all her exercises."



"I didn't tell him I had Alzheimer's because you know as soon as you say you have Alzheimer's people instinctively think that you're past it" (person with dementia, PA7)"

"I still feel she could do with some more physio buthaving got the physiotherapy people to come and see her they were soon very keen to get shot."

"She [physiotherapist] said I'm going to go away and draw up a schedulethe physio didn't come back..."

Hall 2018 BMC Geriatrics

"Do they like fishing, or football. Rehab may be walking to the ground or going to a match"

"it's always put as a limiting factor—they are doing OK but they have got dementia so they won't go much further"

"We've had some really positive outcomes and that in itself breeds positivity"

Thinking outside the box



Challenges

Realising potential

Hall 2017 BMC Geriatrics

EDITORIAL

'Mrs Smith has no rehab potential': does rehabilitation have a role in the management of people with dementia?

- We make judgements about where to allocate resources
 - Will someone receive any physiotherapy
 - How much they receive
 - Whether they are referred on for rehab
- How do we/should we decide?

So what next?



Research?

- Other exercise/activity interventions
 - Balance/coordination
 - Combined physical and cognitive rehab
 - Non-traditional interventions
- Evaluate outcomes that are important to those with dementia
 - Core outcomes (Harding 2018)

Strategies to promote exercise and activity

- Involve friends and family
- Non-verbal communication
 - Mirroring
 - Modelling
 - Rhythm
- Doesn't need to be perfect
- Make it enjoyable
- Social interaction

Conclusions

- Evidence is lacking in quality and quantity
- PwD are often labelled as having 'no rehab potential'
- Healthcare professionals need training on how to work with PwD effectively

A picture says a thousand words...

<https://vimeo.com/244338080>