



# Episode 10 Show Notes
# Interventions in Early Dementia

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## Learning Outcomes

### Knowledge:

- To understand the relationship between physical activity and cognitive processing
- To appreciate preventative measures in mid-life
- To appreciate the neuroplasticity/adaptive potential in early dementia that can be harnessed to delay functional and cognitive decline

### Skills:

- To be able to recognise problems encountered by people with dementia in the early stages, and their families and caregivers
- To feel confident in signposting towards services to support them

**Attitudes:**

- To signpost those with a new diagnosis of dementia to appropriate services that can help them
- To promote preventative interventions during mid-life to reduce risk of cognitive decline
- To think positively about the opportunities available alongside the diagnosis of dementia

## Key points from discussion

### MODIFYING THE DISEASE COURSE

#### Physiotherapy

We usually just think about the physical outcomes of increased muscle strength, better balance etc. in terms of falls risk reductions, but there is evidence that physiotherapy interventions have effects on many systems. Specifically here physical activity has positive effects in slowing cognitive decline.

- Now several studies have found links between levels of physical activity and cognitive impairment
- Dose - response relationship
- Relative gains

  - greatest improvements seen in sedentary to light exercise group i.e. don't need to be running marathons
  - seemingly not a threshold dose of exercise required
- Studies showed reduction in cognitive decline
  - Delayed onset between 1.5 and 2 years compared with controls
- Seen for Alzheimer's  more than vascular dementia - unclear why
- Mechanism not known
  - Whether related to muscle strength and cardiovascular fitness
  - Group effect, e.g. increased interaction, motivation, and effects on mood

*Physical activity and the maintenance of cognitive function.*
Rockwood 2007

*Physical activity and cognitive functioning: translating research to practice with a public health approach.*
Prohaska 2007

Clock yourself is an app-based training programme which actively combines cognitive training with reaction training.

http://clockyourself.com.au

**Key point**: there are very few fixed inevitabilities in a person's life course. Even diagnoses perceived to be fixed still have the potential for modification through actions and behaviours.

- At a very basic level, having a gene for a disease often means you are more disposed to that condition but does not necessarily mean that you will definitely develop that

disease. Multiple other factors including environmental contribute to whether or not the disease develops later in life.

- Similarly the course of a disease can be altered by specific actions the person with it can take. Not in all, but for example early in Type 2 diabetes, weight loss and good control of sugars can reduce the risk of complications down the line
- Same is true for dementia (as well as disability and frailty)

**PREVENTION**

**Exercise in midlife**

Studies looking at risk reduction through exercise showed greatest risk reduction in those expressing the apoe e4 allele (a gene related to the progression of Alzheimer's disease). Not in all studies so not definitive. Physical activity reduced admissions for men with dementia but not women.

The risk of dementia, disability and frailty will sometimes be determined by factors that can't be changed, such as inherited conditions or injury. But changing specific risk factors and behaviours can reduce the risk of dementia, disability and frailty for many people. These changeable factors – smoking, lack of physical activity, alcohol consumption, poor diet and being overweight – are the focus of the NICE guideline.

Nice guidance on preventing dementia

Several cohort studies have found links between successful ageing and a person never having

smoked (or having quit), exercising regularly, eating fruit and vegetables daily and drinking only a moderate amount of alcohol. The EPIC-Norfolk study found that people who adopted all these behaviours lived an average of 14 years longer than people who did none of them (Khaw et al. 2008). They also had more quality-adjusted life years (Myint et al. 2011). In the Whitehall study, people who adopted all 4 behaviours were 3.3 times more likely to age successfully. The association with successful ageing was linear, with people who adopt healthier behaviours having a greater likelihood of successful ageing (Sabia et al. 2012). However, other risk factors such as social isolation can have an effect.

There is a lack of evidence on whether dementia can truly be preventable or whether it is only the onset that can be delayed, and on which types of dementia are most influenced by modifiable risk factors.

*Behavioural Risk Factors in Mid-Life Associated with Successful Ageing, Disability, Dementia and Frailty in Later Life: A Rapid Systematic Review.*
Lafortune et. al 2016

**Neuroplasticity**

Neuroplasticity is the neurological ability to regenerate for example as seen in stroke rehabilitation. It is the suggested mechanism for how the above interventions may work, and therefore it makes sense therefore that interventions should be targeted at earlier life behaviours before diagnosis, and in the early stages of dementia, when they may have more effect.

**LIVING WELL**


**Psychosocial interventions**

A broad term used to describe different ways to support people to overcome challenges and maintain good mental health. These help predominantly in early stages of dementia but also throughout someone's life with dementia, and are for patient and their families.

- Psychosocial interventions can help with
  - coming to terms with a diagnosis of dementia
  - maintaining your social life and relationships after diagnosis
  - reducing stress and improving your mood, for example, if feeling worried, anxious, or depressed
  - thinking and memory (cognitive function)
  - living independently
  - quality of life – maintaining health and happiness, and control over your life l support for your partner and family

Deciding on the right psychosocial interventions is personal and depends on an individual's needs and preferences.

The table below summarises the areas that each intervention can help with. The information is taken from '*A guide to Psychosocial interventions in dementia',* a leaflet from The British Psychological Society, November 2014

| | General info | Adjustment to Diagnosis | Stress / Anxiety / Depression | Improving / Maintaining Cognitive Functioning | Help for families and caregivers | Couples / Families, relationships and communication | Maintain Independence | Maintain QOL |
|---|---|---|---|---|---|---|---|---|
| **Dementia advisors** | x | | | | | | x | |
| Someone to provide ongoing support to help you live well with dementia - single named person. Sometimes called 'case management'. Primarily for the person who has dementia but usually available for relatives and caregivers too. Provide information you need, when you need it and help access services. Can provide some control over the future, peace of mind, help for your partner, family and professionals to act in your best interests when faced with decisions concerning your treatment, care or finances. Need a referral from a GP or other professional. | | | | | | | | |
| **Dementia / memory cafes** | x | | | | x | x | | |
| People with dementia, families, volunteers and professionals meet to share information and experiences. Sometimes they may have a speaker on a specific topic. Informal drop in basis. Aim to minimise social isolation also. | | | | | | | | |
| Involvement groups | x | | | | | | x | x |
| Groups meeting regularly to discuss how improvements can be made in the local community and in professional services in relation to dementia. | | | | | | | | |
| | **General info** | **Adjustment to Diagnosis** | **Stress / Anxiety / Depression** | **Improving / Maintaining Cognitive Functioning** | **Help for families and caregivers** | **Couples / Families, relationships and communication** | **Maintain Independence** | **Maintain QOL** |
| **Post-diagnostic counselling** | | x | | | | | | |


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|---|---|---|---|---|---|---|---|---|
| Process of providing support in coming to terms with your diagnosis of dementia. Opportunity to ask information, discuss any worries or fears, discuss plans for coping and support in the future. | | | | | | | | |
| Post-diagnostic groups | x | x | | | x | x | | |
| A group which usually runs for a set number of sessions (usually 4-12) with speakers on different topics. | | | | | | | | |
| **CBT** | | | x | | x | | | |
| A talking therapy to overcome emotional and psychological problems e.g. stress, anxiety, depression. Aims to provide new skills to overcome life challenges. One of the types of talking therapy. May suit some people better than others. Evidence that works for people with early dementia. Can also be used with carers / family. | | | | | | | | |
| **Counselling / Psychotherapy** | | | x | | x | | | |
| Two types of talking therapy. For people who are struggling on a personal level with problems and feelings from a diagnosis and effect of dementia on their lives and personal relationships. More info on Alzheimer's website. Evidence shows can reduces anxiety and depression. | | | | | | | | |
| **Reminiscence** | | | x | x | | | | x |
| For anyone with a diagnosis of dementia. Usually done in a group setting. Focuses on using a person's preserved memories, rather than focusing on disability. | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|
| Life Review Therapy | | | x | | | | | |


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| Type of talking therapy, looking back over your life. Useful for people finding it hard to come to terms with their situation in life, struggling with depression and feelings of anger or bitterness. Accessed via specialist mental health or memory service. | | | | | | | | |
| **Stress/Anxiety Management** | | | x | | | | | |
| Referral from GP or a professional. Usually focuses on relaxation techniques. | | | | | | | | |
| Animal Assisted Therapy | | | x | | | | | x |
| Using animals to achieve a goal in therapy e.g. motivation for exercise, improving communication skills or confidence. Distinct from animal activities which is more relaxation. | | | | | | | | |
| **Family / Systemic Therapy** | | | x | | x | x | | |
| Form of psychotherapy aiming to help people in a close relationship to understand each other and communicate their feeling and emotions to each other. Useful when experiencing difficulties in their relationships with other family members. Specialist service - need referral from memory service or psychiatrist. | | | | | | | | |
| **Assistive Technology** | | | | x | x | | x | |
| Devices and technology that can help maintain independence, keep you and family safe. Broad ranging. OT will advise. E.g. communication aids, GPS, medication monitor / alarm to prompt medication, gas supply, temperature regulation, tablets to keep in touch. | | | | | | | | |
| | **General info** | **Adjustment to Diagnosis** | **Stress / Anxiety / Depression** | **Improving / Maintaining Cognitive Functioning** | **Help for families and caregivers** | **Couples / Families, relationships and communication** | **Maintain Independence** | **Maintain QOL** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Cognitive Rehab** | | | | x | | | x | |
| Approach to managing impact that dementia related difficulties can have on everyday life e.g. problems with thinking and memory. Set goals, usually involves a family member too. Can involve learning strategies for managing memory problems or better ways of tackling everyday tasks. Can choose to learn something new that may then help you e.g. ipad, to help in everyday situations, or go back to a previous activity. Learning ways to compensate for difficulties / managing them better. | | | | | | | | |
| **Cognitive Stimulation Therapy** | | | | x | | | | |
| Group therapy used to strengthen communication skills, thinking and memory. Mild to moderate stages. | | | | | | | | |
| Cognitive Training | | | | x | | | | |
| 'Brain Training', involves training specific aspects of memory and other thinking skills, usually through an exercise or game on a computer. Not personally tailored and not proven to be as effective as cognitive rehabilitation. | | | | | | | | |
| OT | | | | x | x | | x | |
| Enabling you to keep doing the activities you enjoy. Maximising abilities by adapting to learn to do things in a different way, helping with adaptation to be able to live independently at home, and helping you to use your strengths. | | | | | | | | |
| Peer support groups | | | | | x | x | | |
| Usually for those who are recently diagnosed or in the early stages. Groups for family and caregivers too. | | | | | | | | |
| | **General info** | **Adjustment to Diagnosis** | **Stress / Anxiety / Depression** | **Improving / Maintaining Cognitive Functioning** | **Help for families and caregivers** | **Couples / Families, relationships and communication** | **Maintain Independence** | **Maintain QOL** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Creative Art Therapies** | | | | | | | | x |
| Type of psychotherapy, using painting, literature, sculpture and music as a focus for treatment. Uses artistic expression to help with emotional difficulties and maintaining quality of life. Alternative to talking therapy. Opportunity to express emotions which are difficult to convey with words alone, provides intellectual stimulation, improves well-being and QOL. Arts4dementia and Alzheimer's website | | | | | | | | |
| Music Therapy | | | | | | | | x |
| As above. | | | | | | | | |

**Nutritional supplements**

Souvenaid- initial studies promising. EEG showed effect on the functional connectivity of the brain. A systematic review of RCTs suggested that supplementation does not show effects on functional ability, but small improvement in memory. Further studies are ongoing.

*Efficacy of Souvenaid in mild Alzheimer's disease: results from a randomized, controlled trial*
Scheltens et al. 2012

*The efficacy of supplementation with the novel medical food,Souvenaid, in patients with Alzheimer's disease: A systematic review and meta-analysis of randomized clinical trials.*
Onakpoya et al, 2015

**Occupational therapy**

OT integrated into early memory rehabilitation in project in Belfast and Scotland.

- Home based, teaching strategies to manage memory impairment and everyday functional tasks
- Number of strategies retained but not long term
- Increased awareness and referrals to service
- Effective, and as cost effective as drug treatment for memory impairment

OT: home-based memory rehab

**Speech and Language Therapy**

- Can provide more effective assessment
    - Specific analysis of associated language disorders to inform differential diagnosis
    - Specialist assessment of eating, drinking and swallowing problems
    - Assessment of an individual's capacity to consent to treatment and care
- Preservation of independence
    - Providing an optimum environment for communication, eating and drinking
    - Providing specific programmes to maximise and maintain function

SALT provision for people with dementia
RCSLT Position Paper 2014

- Some dementia may prevent with a primary language problem, eg Primary Progressive Aphasia
    - specialist SALT may be very useful here

*Nonpharmalogical interventions for cognitive impairments following primary progressive aphasia*

Carthery-Goulart et al. 2013

**Key point :** Family and carers of people with dementia are at high risk of physical and mental illness as a consequence of caring and they require attention and support. Caregivers have a right to an assessment under the Care Act.

**Useful resources:**

www.alzheimers.org.uk
www.arts4dementia.org.uk
www.bsp.org.uk
www.alzheimercafe.co.uk
www.dementiaweb.org.uk
www.memorycafes.org.uk
https://ahpscot.wordpress.com/2013/11/25/taking-the-leap-sharing-an-ot-early-intervention-in-dementia/

## Curriculum Mapping:

This episode covers the following areas (n.b not all areas are covered in detail in this single episode):

| Curriculum | Area |
|---|---|
| NHS Knowledge Skills Framework | Suitable to support staff at the following levels:<br>• Personal and People Development: Levels 1-3<br>• Service Improvement: Level 1 |

The Hearing Aid Podcasts

| | | |
|---|---|---|
| Foundation curriculum | **Section** | **Title** |
| | 1.3 | Continuity of care |
| | 1.4 | Team working |
| | 2.1 | Patient as centre of care |
| | 6.1 | Lifelong learning |
| | 6.2 | Evidence and guidelines |
| | 7.9 | Interactions with different specialities and other professions |
| | 10.1 | Manages patients with long term conditions |
| | 10.2 | Supporting patient decision making |
| | 10.5 | Health promotion, patient education and public health |
| Core Medical Training | The patient as central focus of care<br>Management of long term conditions and promoting self-care<br>Health promotion and public health<br>Evidence and guidelines<br>Geriatric Medicine | |
| GPVTS program | Section 2.03 The GP in the Wider Professional Environment<br>• Core Competence: Managing medical complexity<br>Section 3.01 - Healthy people: promoting health and preventing disease<br>Section 3.05 - Managing older adults<br>• Core Competence: Managing medical complexity<br>• Core Competence: Working with colleagues and in teams<br>• Core Competence: Practising holistically and promoting health | |

| | |
|---|---|
| | • Core Competence: Clinical Management<br>Section 3.10 - Care of people with mental health problems |
| ANP (Draws from KSF) | Chronic conditions<br>• 7.21 Dementia, depression, anxiety<br><br>Managing long term conditions and promoting patient self care<br>• 19 KSF HWB4 Level 4<br>• KSF HWB5 Level5<br><br>Teamworking and patient safety#<br>• 22 KSF Core 2 Level 1.<br><br>Patient as central focus of care<br>• 20 KSF HWB5 Level 4 |

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