# Supporting independence and function in people living with dementia

A handbook of reablement programs for service providers and others with an interest in improving function.

Second Edition

COGNITIVE DECLINE PARTNERSHIP CENTRE

HammondCare Champion Life

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**Reablement is about helping people living with dementia maintain functional ability for as long as possible, improve functional ability where possible, or slow down the rate of decline in functional ability.**

# Contents

# Introduction

This *handbook* is the result of the 'reablement in dementia' project and builds on the *Clinical Practice Guidelines and Principles of Care for People with Dementia (Guidelines)* published by the Cognitive Decline Partnership (CDPC) in 2016[1] . The *Guidelines* present a range of evidence-based recommendations and consensus-based practice points which could delay the onset of functional decline, or improve function and quality of life in people living with dementia.

This project involved both a review of the *Guidelines* to identify reablement interventions suited to this *handbook*, as well as an updated review of the literature to identify other relevant research that had not been included in the *Guidelines*, or had post-dated the publication of the *Guidelines*.

The project has resulted in the development of three resources:

### 1) The *technical guide*

The *technical guide* contains the most detailed outline of the reablement interventions. It is targeted at the health professional planning or implementing a reablement service, and any person wanting to read a fuller account of the research findings, learn more about a specific reablement program, or identify the original research projects and protocols from which the interventions were derived.

*Available from: hammondcare.com.au/reablement*

### 2) This *sector handbook*

This sector handbook is written primarily for aged care providers, allied health and nursing professionals, managers and care workers. People living with dementia and their family members or support persons may also find this handbook useful. The handbook presents the information detailed in the *technical guide* in a more accessible and summarised manner, focusing on practical delivery of reablement programs. For more detailed program information and reference to the original studies, readers should refer to the *technical guide.*

Throughout this *handbook*, reference to the *technical guide* will be indicated by this icon.

### 3) The *consumer information booklet*

This is written as a summary primarily for the person living with dementia but also provides an overview of key points for family members, support persons and care workers.

*Available from: hammondcare.com.au/reablement*

### A note on the three resources

While the *technical guide*, *sector handbook* and *consumer information* booklet have been written for specific readers, each resource is also available for anyone wanting to learn more. Please note, the three resources have points of difference—language, tone and level of detail.

***It is recommended that health practitioners routinely provide a copy (or link) to the consumer information booklet for all consumers involved in a reablement program.***

## About this *sector handbook* and about the 'translation' of research evidence:

Research evidence reported in the scientific literature is often generated using strict protocols and specifically trained staff, and may be conducted within a research environment. This means that not all research protocols may be suitable to, or sustainable outside of, this environment.

***This handbook attempts to 'translate' the research to make it applicable to the 'real-world' aged care setting. We have done this by synthesising key elements from the research studies, including the content, duration and intensity of the interventions described in the research, in a way that we feel maintains the fidelity of the original research, but is also practical and not prohibitively costly.***

***We have therefore chosen the term 'evidence-informed' to describe the programs outlined in the technical guide and handbook. Details of the original research can be readily found in the technical guide.***

In translating the research, we have provided the following:

- 'Practice Points' have been included in places where an approach, although not described in the original research, would also seem to make sense (for example, an original research protocol may have called for a physiotherapist to conduct a specific intervention, but we feel that other health professionals, such as exercise physiologists, may also be suited to the task).

  
  Practice Points are indicated by this icon

- 'Sustainability Points' have been included where we have considered that it might be possible to improve the sustainability of programs by making use of existing resources. An example might be where allied health professionals are able to train care workers or family members to assist in program delivery.

  
  Sustainability points are indicated by this icon

When considering practice points or sustainability points, it is important that program fidelity is maintained as far as possible. This includes the training of staff or family members, assessing their competency to deliver the program and ensuring they receive necessary support from the health professional to carry out the program. N.B.: Additional education on dementia more generally, and on working with people living with dementia is available through a number of reputable

providers across Australia (see for example, Dementia Australia).

## Structure of this *handbook*:

The *handbook* has been structured around three outcome areas:

**Supporting everyday living activities**

**Supporting mobility and physical function**

**Supporting cognition and communication**

To address these three outcomes there are eight reablement programs, as follows:

**Supporting everyday living activities through:**

- 1: An occupational therapy program
- 2: An exercise program
- 3: A cognitive program

**Supporting mobility and physical function through:**

- 4: A falls prevention program
- 5: An exercise program

**Supporting cognition and communication through:**

- 6: An exercise program
- 7: A cognitive program
- 8: A communications program

Within each of these eight reablement programs we describe a range of **'plans'**. The plans are based on where the program takes place (for example, in the community or residential care setting) and whether the program is delivered to individuals, care dyads or in a group setting.

The choice of **program** and **plan** will depend on a range of factors, including: the individual wishes and needs of each person, the type of functional issue that the person wants to address to maintain independence or slow decline, the skill level of the staff and family members/ support people who may be available, access to assistive technology, and the funding available to the provider or the person.

## Program cost

Cost will vary depending on which program and plan is chosen.

In the *handbook* we have attempted to describe the nature of the costs that might be incurred in conducting each program. Costs will vary between programs, and will include direct staff time to prepare and deliver programs, training of staff (e.g. care workers) and/or family members, travel, equipment and other materials needed for the program, administration costs, and the cost of purchasing or hiring any assistive technology required (such as sensor lights, home modification costs, or mobility equipment).

## Program duration and intensity

One of the most challenging aspects of translating the reablement research into practice has been to make recommendations about program duration (i.e., total time over which the program runs) and intensity (i.e., number of sessions and duration of each session). This is because each program described in the *technical guide* and *handbook* is synthesised from a range of different research studies, each varying in duration and intensity. In the translation process used for the *handbook* we have stipulated what we feel is the minimum effective program duration and intensity required to achieve an outcome. In light of these program inconsistencies, regular review of progress and achievements is paramount to guide future planning of program duration and intensity. We encourage you to consult the *technical guide* to get a better feel for the differences in program duration and intensity described in the original research.

## Who are the interventions for?

While the programs in this *handbook* are based on research that has involved people living across all stages of dementia, the primary focus has been on research involving people in the mild to moderate stages of dementia (for more details refer to the *technical guide* ).Also, while the majority of studies have involved people living in community settings the *handbook* also describes programs for use in residential care.

People living with more advanced stages of dementia may still be able to participate and benefit from the reablement programs described in the *handbook*. However, programs will need to be tailored to suit the person's abilities and level of functioning.[2]

## Formal rehabilitation and restorative care programs

The programs outlined in this *handbook* are no substitute for formal rehabilitation programs following severe illness or injury. There is sound evidence that people living with dementia benefit from rehabilitation programs, and a diagnosis of dementia should not deny them these programs.[3,4]

Similarly, people with dementia should have access to the Short-Term Restorative Care (STRC) Programme following a setback, or the Transition Care Programme (TCP) if they have been in hospital, and have been deemed eligible by an ACAT or via the NDIS.

*For more information see glossary on p. 75*

## Language

Terms used within this handbook have been chosen in collaboration with a range of representatives from the aged care sector and people impacted by dementia. Some terms (including the term 'reablement' itself) have been chosen because they are terms already being used within the sector. We have also tried to use terms that are understood and preferred by people living with dementia and family members or support persons.

For a full list of terms used within the *handbook*, refer to p. 75 for the glossary. For a more comprehensive definition of reablement, turn to p. 13.

**‘Reablement involves time-limited interventions that are targeted towards a person’s specific goal or desired outcome to adapt to some functional loss, or regain confidence and capacity to resume activities.’**[5]

# What is reablement?

There is research evidence to suggest that people living with dementia may maintain their functional ability for longer, improve in aspects of their functioning, or reduce the rate of decline in their functional ability, through specific approaches that are consistent with the term 'reablement'. A focus on improving or maintaining functional ability may also lead to other beneficial outcomes, such as improved quality of life and independence, or the ability to remain living at home for longer.

According to the Commonwealth Home Support Programme (CHSP):

> 'Reablement involves time-limited interventions that are targeted towards a person's specific goal or desired outcome to adapt to some functional loss, or regain confidence and capacity to resume activities.'[5]

The term 'reablement' is similar in concept to the terms 'restorative care' and 'rehabilitation'. All three concepts feature a focus on helping people maximise their functional ability, working with people to identify and achieve goals that are meaningful to them, and having a team approach to care (including the person themselves and where appropriate, family members and support persons).

The main differences between the three terms (reablement, restorative care and rehabilitation) are in the intensity, cost and location of the program. We might consider 'rehabilitation' to be the most intensive and costly, often occurring within or associated with a hospital setting; 'reablement' being the least intensive, least costly and occurring in the community setting (including in residential care); and 'restorative care' sitting somewhere in the middle, such as the Short-Term Restorative Care (STRC) Programme or the Transition Care Programme (TCP).

Because of its lower cost, and the fact that it is ideally provided in the community setting, there is scope for reablement programs to be offered by a broad range of aged care providers.

## The reablement programs outlined in this *handbook* have the following features:

*They are based on research evidence*

We describe programs as being evidence-informed, because we have taken the research published in scientific journals and translated it into programs suited to the real-world aged care setting. The *technical guide* provides more detail about the original research protocols.

*They are time-limited*

Consistent with the research evidence, and our understanding of reablement in the Australian context, the programs described in this *handbook* have a beginning and an end. The duration of the programs should be long enough, and intensive enough to balance achievement of program outcomes and cost.

# *Program goals should be meaningful and important to the person*

*They are goal focused*

Program goals should be meaningful and important to the person. Goals also need to be realistic. The reablement approach should focus on what the person wants, their values, support network, and the environment, as well as the functional abilities that the person hopes to maintain or regain. For one person, the goal may be to continue an everyday activity such as cooking, while another person may wish to maintain social engagement for as long as possible. Identifying meaningful goals and delivering programs in an enjoyable manner is key to engagement and program success.

Establishing what the person wants is the first step in helping the person living with dementia to establish their program goals. Following this, a thorough assessment of the person's cognitive and physical ability is conducted.

Reablement may focus on maintaining or improving functional ability (e.g. using regular exercises to maintain muscle strength and mobility and reduce the risk of falls); restoring lost functional ability (e.g. recovering function after a setback, such an illness, or a fall); or compensating for changes resulting from dementia (e.g. identifying suitable memory prompts).

Reablement programs may make use of existing community facilities (e.g., the local gym or park) as appropriate, supporting inclusion of people living with dementia within their communities. Measuring how successful the reablement program is in helping the person to achieve their goals is essential. This will help program providers 'fine tune' future programs and provide information to participants about other reablement programs that could be of benefit.

## Creating the best environment for reablement to occur

A reablement program could be a good opportunity to review other aspects of the person's health and wellbeing. Reablement is likely to be most effective when:

- there is a correct diagnosis of dementia
- medications have been reviewed
- any other medical conditions are well controlled
- there are adequate pain management strategies in place if the person has pain
- the person has good nutritional status
- any changed behaviours are identified and appropriate management strategies are put in place
- the person's family member, support person or care worker can be actively involved in the delivery of programs. The *handbook* describes situations where this could occur.

## Family members need to care for themselves

Family members play a significant role in dementia care and are great enablers of reablement.

The involvement of a family member, friend or loved one often means the person living with dementia can live at home for longer and have individualised support. More specific to reablement, the support person can encourage the person to continue exercising, carry out reablement programs at home, or even participate in the reablement program with the person with dementia.

However, in supporting the person living with dementia, the family member may neglect his or her own physical and emotional health. Family members need to be encouraged to maintain their own wellbeing—continuing social activities, good eating and regular exercise. Other tips to encourage family member wellbeing include:

- Being well informed about the dementia. Awareness and knowledge of the changes that can occur as a result of the dementia will enable the family member to be prepared, reducing stress and anxiety around the unknown.
- Sharing the load with other family members, friends or support people and involving care professionals in the dementia journey.
- Seeking help. This includes utilising the help of local services and support groups, professional carers, health professionals, and other family members.

For more information, please refer to the following resource:

*http://dementiakt.com.au/wp-content /uploads/2016/06/LookingAfterYourselfFlyer.pdf*

### *Key points:*

- Reablement is concerned with helping people living with dementia to maintain functional ability for as long as possible, to improve functional ability where that is possible, or to slow down the rate of decline in functional ability.
- Reablement programs are time-limited and outcome-focused.
- The best environment for reablement is created when associated health conditions are well managed, and when family members and support people are involved.
- Supporting a person who has dementia can be stressful, so family members are encouraged to look after their own wellbeing.

**Because of its lower cost, and the fact that it is ideally provided in the community setting, there is scope for reablement programs to be offered by a broad range of aged care and service providers.**

# *Programs*

# Supporting everyday living activities

# *Supporting everyday living activities*

Everyday living activities include the things we do on a day to day basis, ranging from more complex tasks (e.g. doing the shopping or cooking a meal) to more 'basic' tasks (e.g. showering or dressing). Not being able to carry out these tasks can impact on a person's independence and quality of life.

Everyday living activities are commonly referred to in the research as activities of daily living (ADLs).

Reablement programs include:

**1: Supporting everyday living activities through an occupational therapy program**

*1.1 A plan delivered at home or in the broader community*

**2: Supporting everyday living activities through an exercise program**

*2.1 A plan delivered at home*

*2.2 A plan delivered in the broader community*

*2.3 A plan delivered in residential care*

**3: Supporting everyday living activities through a cognitive program**

*3.1 A cognitive rehabilitation plan delivered at home or in the broader community*

*3.2 A cognitive stimulation plan delivered in the broader community*

*3.3 A general cognitive plan delivered in residential care*

# *1: Supporting everyday living activities through an occupational therapy program*

**The *Clinical Practice Guidelines for People living with Dementia* recommend: 'People with dementia living in the community should be offered occupational therapy interventions.'[1]**

**The role of an occupational therapist (OT) is to help the person living with dementia be as independent as possible. The OT works with both the person with dementia and their support person, usually in their home and surroundings, to find practical and tailored strategies for achieving meaningful and personalised goals.**

**Research studies have reported that OT interventions can have a positive effect on everyday living activities.**

This program consists of only one evidence-informed plan:

*1.1 A plan delivered at home or in the broader community.*

### Setting:

The home or broader community.

### Duration:

The duration and intensity of programs reported in the research studies varies widely, ranging from 5-10 sessions delivered over periods of between 5 weeks to 4 months.

The suggested minimum plan duration and intensity likely to achieve a benefit is:

*Plan 1.1:*

60–90 minute sessions, delivered across 10 sessions, over 5–16 weeks.

### Who can run this program?

As this program has been based on studies that only use OTs we would recommend that OTs are essential for program delivery.

For improved sustainability, it may be possible for a care worker or family member to be trained to deliver or support aspects of the program, while ensuring program fidelity is maintained.

## *Plans*

Key elements of OT interventions include:
See *technical guide* for more plan details.

Elements of an effective OT program

| For the person with dementia | For the support person | The home environment |
|---|---|---|
| • Assessment of interests and abilities, ensuring a focus on supporting abilities as much as possible.<br>• Practising everyday living activities to support continued everyday functioning, e.g. family member may assist with putting on the washing machine, but the person can then finish the rest of the laundry task (hanging out, bringing in, folding, putting away).<br>• Strategies to compensate for functional changes, e.g. using a timer when cooking or using a list when shopping. | • Highlighting the abilities of the person with dementia.<br>• Education on dementia including symptoms and associated changes.<br>• Understanding the importance and impact of the home environment on everyday functioning.<br>• Skill development such as strategies in problem solving, communication, activity simplification, and coping.<br>• Learning to manage different care situations as they arise, e.g. identifying changes in abilities, and thinking about how tasks can be adapted to support continued participation.<br>• Learning effective communication strategies, e.g. providing options rather than asking an open-ended question, or giving one instruction at a time. | • Modifying the environment to ensure it is more enabling for the person with dementia through changes such as:<br>- decluttering spaces<br>- ensuring appropriate lighting<br>- reducing competing noises<br>- providing assistive technologies (e.g. falls monitor, electronic bidet) and environmental modifications (e.g. clearly defined hot and cold taps).<br>• Environmental cues to support independence, e.g. providing daily schedules on a whiteboard with a clock in a common space to support the person in independently planning their day. |
| Establishing strategies or supporting effective communication between the support person and the person living with dementia. | | |

The OT also provides:

- A written support plan (outlining the abilities of the person with dementia, goals for intervention, and the agreed strategies) so that the family member and person living with dementia can refer to these.
- Referral to other community programs and resources as required.

## Stages of an occupational therapy plan:

The following outline shows how a 10 session program could be delivered across three stages:

*1) Initial assessment*

*2) Active intervention*

*3) Future planning*

Refer to the *technical guide for more plan details.*

*1: Initial assessment (sessions 1–2)*

This first phase involves the OT's assessment of:

- the person with dementia—their wishes, interests, roles, abilities, functional cognition and performance in everyday tasks
- the support person—their understanding of dementia and its impact on the person they care for, and how they communicate with the person living with dementia
- the environment—does it support optimal function in everyday living tasks, and how enabling is the environment?

Toward the end of the initial assessment, the person living with dementia and their support person set goals in partnership with the OT. These goals should be meaningful and individualised.

*2: Active intervention (sessions 3–8)*

Based on the OT's assessment from phase 1, this second phase is split into three main areas—the person with dementia, the support person and the home environment. As an example, the table on p. 23 shows how an OT might work to achieve the goal of maintaining a person's role as family cook.

*3: Future planning (sessions 9–10)*

As well as reviewing what has been achieved, the OT should tailor advice consistent with the person with dementia's current level of function and any associated challenges. The OT will then provide information on how to adapt strategies as needs and abilities change. The OT will help guide expectations about the future (e.g. providing education on dementia progression), and may refer the person and their support persons to relevant community groups or support services. If relevant services are unknown, referral could be made to peak dementia support bodies.

Example of active intervention phase in an OT program

| For the person with dementia | For the support person | The home environment |
|---|---|---|
| Goal: Maintaining role as family cook.<br>Possible strategies: Assistance with meal planning and practising cooking skills with specific meals. | Goal: Supporting the person with dementia to maintain their role as cook.<br>Possible strategies: Understand the abilities of the person to support them to continue cooking. Provide assistance with the grocery shopping, and cue as needed e.g. setting up the cooking task. | Goal: Ensure the home environment supports the person in maintaining their role as cook.<br>Possible strategies: Ensure kitchen bench is clear of anything unrelated to the specific cooking task, introduce use of stove timer to assist with managing cooking times, provide step-wise recipes with illustrations. |

## *Key points:*

- OT interventions have been found to be beneficial in supporting everyday living abilities for people with mild to moderate levels of dementia living in the community.
- The OT works with the person, their support persons and their home environment, providing individualised suggestions to support the person's desired level of daily function and maintain independence for as long as possible.
- The plan can be delivered over three stages: 1) an initial assessment, 2) the active intervention, 3) future planning.

# *2: Supporting everyday living activities through an exercise program*

**The *Clinical Practice Guidelines for people living with dementia* recommend: 'People with dementia should be strongly encouraged to exercise.'[1]**

**As with everyone, exercise has benefits for people living with dementia, helping them to maintain or improve function and independence. Exercises should be tailored to the person's goals and abilities. The health professional will work with the person to help them achieve their goals.**

This exercise program consists of three evidence-informed plans:

*2.1 A plan delivered at home*

*2.2 A plan delivered in the broader community*

*2.3 A plan delivered in residential care.*

## Setting:

The home, broader community or residential care.

## Duration:

The duration and intensity of programs reported in the research studies varies widely. Program duration has ranged from 7 weeks to 15 months, with the number of sessions ranging from once a week to daily. Session duration ranged from 15 minutes to 75 minutes.

The suggested minimum plan duration and intensity likely to achieve a benefit is:

*Plans 2.1 and 2.2:*
60 minute sessions, delivered twice a week for 3 months.

*Plan 2.3:*
30 minute sessions, delivered 3 times a week for 3 months.

To preserve an achieved level of functional gain from an exercise program, there would usually be a requirement for ongoing maintenance.

## Who can run this program?

The research studies reported programs delivered by: physiotherapists (PTs), exercise physiologists (EPs), family members and occupational therapists (OTs).

These exercise plans could be delivered by a range of allied health disciplines as long as they have appropriate training.

For improved sustainability, it may be possible for a care worker or family member to be trained to deliver or support aspects of the program, while ensuring program fidelity is maintained.

## General comments about the equipment that can be used to support these plans:

Depending on the plan chosen, equipment may include items such as: exercise bikes, treadmills, weights, balls, balance pads, foam/rubber ground mats for safety, walk belts, weighted belts, foam balls of gradually decreasing size. Weights, especially for plans carried out at home, may be simple domestic items, such as a bag of rice. Features of the home environment such as stairs and outdoor areas can also be used. Other comments about equipment are included below.

While choosing an exercise location is often a pragmatic decision, for people living with dementia the location can be important. Consideration needs to be given to whether the environment supports the person and their changing abilities. For example, is the location familiar? Are noise and visual distraction present? Make sure the television is turned off, or if in a park, move the exercise away from a noisy children's play area.

### A note about adverse events:

In the research studies, reported adverse events were minor and included complaints of stiffness, mild-joint pain, discomfort, dizziness, musculoskeletal issues or minor falls.

These types of events may be addressed by adjusting the exercises to suit the current ability of the person, or slowing the rate at which exercise intensity or repetitions are increased. Effects such as discomfort may simply ease as exercise continues. If there are any concerns, the person should be assessed by their medical practitioner.

In a real world setting, normal risk management considerations should apply.

## *Plans*

The following table contains three evidence-informed exercise plans, across different settings, to support everyday living activities.

Exercise plans 2.1, 2.2 and 2.3 to support everyday living activities, based on location and setting

| Plan stages | 2.1: A home based plan (for the dyad) | 2.2: A gym or community based plan (for individuals or small groups) | 2.3: A residential care based plan (for small groups) |
|---|---|---|---|
| Goal setting | • Goal setting by the person living with dementia (and their support person where appropriate) to ensure exercises are goal-oriented and then tailored to the person's wishes for their functional or mobility needs. | • Program (and individual, where possible) goals are clearly established and the people matched appropriately. | |
| Assessment | • Health assessment (e.g. by general practitioner) to ensure the person is able to exercise safely.<br>• Physical performance assessment to establish baseline level of fitness, strength and balance. For example, heart rate in a seated position could be measured to determine the rate of exertion during exercise.<br>• Assessment of ability to participate on an individual basis or in a small group setting. | | |

| Plan stages (continued) | 2.1: A home based plan (for the dyad) | 2.2: A gym or community based plan (for individuals or small groups) | 2.3: A residential care based plan (for small groups) |
|---|---|---|---|
| Exercise components | • A personally prescribed multicomponent exercise program with a range of aerobic, strength, balance and functional exercises, or a recognised, pre-designed program involving functional and progressive exercise done at home (usually not requiring specific gym equipment).<br>• Individual (or family member) is also trained in exercise techniques, and provided with an illustrated written program of all the exercises (e.g. photographs or videos of exercises). | • For group settings, exercises are based on recognised pre-designed programs, incorporating aerobic, balance, strength and functional exercises.<br>• Personally prescribed multicomponent programs can also be used.<br>• Exercises may incorporate bikes, treadmills, weights, balls, balance pillows and outdoor areas (e.g. neighbourhood walking).<br>• Programs often feature warm up and cool down protocols. | • Programs are designed to meet the capabilities of the group. May involve multi-component sessions with music to support the exercises:<br>- walking<br>- strength/resistance<br>- balance<br>- flexibility/joint mobility<br>- coordination<br>- functional exercises.<br>• Alternatively, this plan could include an aerobic component (below) or be focused around aerobic exercise:<br>- moderate-high intensity walking sessions for 30 minutes either with support person/s or professional carer, within the residential care home or outdoors<br>- individual or paired cycling sessions monitored by the facilitator.<br>• Programs often feature warm up and cool down protocols. |

| Plan stages (continued) | 2.1: A home based plan (for the dyad) | 2.2: A gym or community based plan (for individuals or small groups) | 2.3: A residential care based plan (for small groups) |
|---|---|---|---|
| Program progression | • As abilities improve, the exercises may increase in difficulty, duration and repetitions.<br>Periodic reassessment as appropriate, e.g. at set time points or after a significant clinical event or change in circumstances. | | |
| Maintenance | • Support person taught to act as 'personal trainer' to the person living with dementia to provide ongoing encouragement. Health professional to ensure program fidelity is maintained over time (e.g. follow-up phone calls). | | • Care workers trained to facilitate a maintenance program and incorporate exercise into everyday activities. Health professionals to 'check-in' to ensure program fidelity is maintained over time. |

Personally relevant prompts such as music, dance, games, and equipment may be used to encourage the person to exercise. In small group settings, peers can also work to support each other. Engagement in exercise programs may be supported by considering the cognitive abilities of the person/s with dementia (e.g. tailoring communication or providing 1–2 step instructions).

## *Key points:*

- There are potential benefits associated with exercise, including helping people living with dementia to maintain or improve everyday function and independence.
- A range of allied health professionals can oversee exercise programs: PTs, EPs, or OTs.
- Support persons or care workers, if suitably trained, may support the delivery of programs.
- Some aspects to consider when planning an exercise intervention include: the type of exercise, the support required, and the location of the program.
- The type of program selected should take into account the environment, the wishes and assessed abilities of the person living with dementia, and program availability and cost.

# 3: Supporting everyday living activities through a cognitive program

**Everyday living activities may be supported by cognitive approaches, however, the evidence-base is limited at the present time. We have built plans based on two specific approaches (cognitive rehabilitation and cognitive stimulation), as well as one using a more general cognitive approach (more applicable to a residential care setting). We have not built a plan based on the approach known as 'cognitive training' due to a lack of evidence to support the effectiveness of this approach in established dementia, but we include a definition (below) of cognitive training for completeness.**

Because many aged care providers and practitioners will have limited experience delivering cognitive interventions, we suggest that practitioners consult the *technical guide*, as well as the original research, if considering a cognitive program. The plans provided in this section of the *handbook* should offer an outline only.

This cognitive program consists of three evidence-informed plans:

- *3.1 A cognitive rehabilitation plan delivered at home or in the broader community*
- *3.2 A cognitive stimulation plan delivered in the broader community*
- *3.3 A general cognitive plan delivered in residential care*

Three cognitive approaches: Cognitive rehabilitation, Cognitive stimulation and Cognitive training.

| | |
|---|---|
| Cognitive rehabilitation | 'Cognitive rehabilitation is an individualised approach to helping people with cognitive impairments in which those affected, and their families, work together with health care professionals to identify personally-relevant goals and devise strategies for addressing these... The emphasis is not on enhancing performance on cognitive tasks but on improving function in the everyday context...'[6] |
| Cognitive stimulation | 'General cognitive stimulation and reality orientation approaches involve engagement in a range of group activities and discussions aimed at general enhancement of cognitive and social functioning.'[6] |
| Cognitive training | 'Cognitive training typically involves guided practice on a set of standard tasks designed to reflect particular cognitive functions, such as memory, attention, language or executive function.'[6] |

Of the three approaches, cognitive rehabilitation would seem to have the most evidence suggesting effectiveness.

**Setting:**
The home, broader community or residential care.

**Duration:**

The duration and intensity of programs reported in the research studies varies widely. Program duration has ranged from 4 weeks to 12 months, with the number of sessions ranging from 1 to 6 times a week. Session duration ranged from 30 to 120 minutes.

The suggested minimum plan duration and intensity which may offer benefit is:

*Plan 3.1:*

60–90 minute sessions, delivered once a week for 3 months, with maintenance sessions occurring afterwards.

*Plan 3.2:*

60–90 minute sessions, delivered twice a week for 2 months, with maintenance sessions occurring afterwards.

*Plan 3.3:*

30–60 minute sessions, delivered 3 times a week for 3 months.

**Who can run this program?**

The research studies reported programs being delivered by: occupational therapists (OTs), psychologists, neuropsychologists, care workers, experienced facilitators of cognitive programs and registered nurses (RNs).

For improved sustainability, it may be possible for a care worker or family member to be trained to deliver or support aspects of the program, while ensuring program fidelity is maintained.

**General comments about the equipment that can be used to support these plans:**

Depending on the plan chosen, equipment may include items such as: personalised orientation boards; pen/paper materials; material for games, calendars, clocks and diaries; materials for craft, woodwork and other activities; and any other practical aids based on the individual's needs/goals (e.g. a timer to assist with cooking, or a medication management container). Other comments about equipment are included below.

Cognitive tasks can create frustration and a sense of failure if activities are not designed or carefully graded to the abilities of participants, particularly when the level of difficulty increases. Frustration can be avoided and engagement enhanced when tasks chosen are age and culturally appropriate, meaningful and graded for their abilities. Facilitators can provide cues to help guide answers and discussion. The facilitator may also need to supervise various tasks, initiate and stimulate discussion, encourage engagement and participation, and demonstrate activities.

Reference should be made to the *technical guide* and original research for details of cognitive programs.

## *Plans*

*3.1 A cognitive rehabilitation plan for individuals to improve or support everyday living activities, delivered at home or in the community.*

Because cognitive rehabilitation is a specific approach, practitioners should refer to the *technical guide* and the original research describing the approach. The main components of cognitive rehabilitation are provided below.

Features of plan 3.1

- Help the person to identify meaningful goals which are to be the focus of the intervention
- Training for the person in cognitive strategies that can help support the achievement of goals and everyday functioning.
- Participants are encouraged to practise strategies between sessions.

Specifically for the care dyad:

- Family member supports their person in goal setting.
- Family member participates in sessions to also learn strategies and techniques and to assist the person to practise strategies between sessions.
- Facilitator (i.e. health professional) provides phone check-ins to follow progress and problem-solve any difficulties.

*3.2 A cognitive stimulation plan to improve or support everyday living activities in small groups (up to 4 people).*

Because cognitive stimulation is a specific approach, practitioners should refer to the *technical guide* and the original research describing the approach. The main components of cognitive stimulation are provided below.

Features of plan 3.2

- Cognitive exercises are tailored to match cognitive abilities of the group.

  In addition, individual goal-setting, where possible, may help to individualise group activities.
- Sessions may start with a general (not specifically cognitive-focused) warm up activity such as a group ball game or a group song.
- Cognitive training exercises to stimulate a range of cognitive functions (e.g. spatial orientation, attention, perception, memory and emotions).
- Cognitive stimulation exercises including:
  - group discussions on topics such as money, word games, famous faces, present day events
  - reality orientation
  - reminiscence activities as well as a focus on the present day
  - questions and discussions requiring information processing rather than factual knowledge, e.g. identifying who looks the youngest in a series of pictures rather than naming who the people are; group discussion of an artwork.

*3.3 Cognitive plan to improve or support everyday living activities in people living in residential care (for individuals, care dyads or small groups)*

Practitioners should refer to the *technical guide* and the original research for details of general cognitive approaches which are outlined below.

Features of plan 3.3

- Cognitive exercises should be personalised to the interests and abilities of the participants where possible.

  Structuring the group to include participants with similar levels of abilities may assist in session planning and group cohesion. Individual goal-setting, where possible, may also help improve relevance of group activities to individual participants.
- Sessions may begin with relaxation exercise, group song, or group discussion. They can also begin with reality orientation of place and time, e.g. discussing the weather.
- Cognitive stimulation exercises involving orientation and pencil/paper exercises, e.g. matching pairs, word jumbles, picture puzzles.
- Memory training exercises, e.g. use of visual imagery.
- Reminiscence using familiar objects, pictures and themes to stimulate discussion.
- Multi-component interventions involving motor exercises (e.g. bowling, croquet), everyday living activities training (e.g. preparing a snack) and activity-based tasks (e.g. gardening, woodwork, craft, sewing or singing).
- Structured group sensory integration activities using materials such as sandbags, music, balls, rope, and cards.
- Group environments should be inviting and supportive, reducing competing stimulation (such as extraneous noise or visual distraction), with facilitators (i.e. health professionals) prompting communication and providing praise.

## *Key points:*

- Everyday living activities may be supported by cognitive approaches, however, the evidence-base is limited at present time.
- Cognitive interventions need to be designed by skilled health professionals in partnership with the person with dementia, family members and support workers who may assist with program delivery.

# Supporting mobility and physical function

# *Supporting mobility and physical function*

Improving or supporting the mobility and physical function of a person living with dementia can greatly assist in maintaining or enhancing independence.

Reablement programs include:

**4: Supporting mobility and physical function through a falls prevention program**

*4.1 A multicomponent plan delivered at home*

*4.2 An exercise plan delivered at home*

*4.3 An exercise plan delivered in the broader community*

**5: Supporting mobility and physical function through an exercise program**

*5.1 A plan delivered at home*

*5.2 A plan delivered in the broader community*

*5.3 A multicomponent plan delivered in residential care*

*5.4 An aerobic plan delivered in residential care*

# 4: Supporting mobility and physical function through a falls prevention program

**Older people are at increased risk of experiencing falls and fall-related injuries. This risk increases when a person has dementia. Falls are a major cause of reduced independence and mobility, loss of confidence, pain and disability.**

**Providing falls prevention programs can reduce the number and severity of falls experienced by people living with dementia, thus potentially improving independence and quality of life.**

This falls prevention program consists of three evidence-informed plans:

*4.1 A multicomponent plan delivered at home*

*4.2 An exercise plan delivered at home*

*4.3 An exercise plan delivered in the broader community.*

## Setting:

The home or broader community.

## Duration:

The duration and intensity of programs reported in the research studies varies widely. Program duration has ranged from 3 months to over 12 months, with the number of sessions ranging from once a month to twice a week.

Practitioners should refer to the *technical guide* for details of duration and intensity.

The suggested minimum plan duration and intensity likely to achieve a benefit is:

*Plan 4.1:*

This multicomponent plan is based on a combination of practitioner visits/assessments/follow-up phone calls, with at least 50% of home safety recommendations implemented, and exercise sessions of 30–60 minutes, 2–3 times a week for 3 months.

*Plan 4.2:*

30 minute sessions, 5 times a week for 6 months.

*Plan 4.3:*

60–90 minute sessions, once a week for 12 months.

Plans 4.2 and 4.3 were based on research studies that were of relatively long durations (6 or 12 months). It is possible that shorter duration programs will also be of benefit.

To maintain an achieved level of functional gain from this program, there would usually be a requirement for ongoing maintenance.

## Who can run this program?

The research studies reported programs delivered by: occupational therapists (OTs) and/or physiotherapists (PTs).

These exercise plans could be delivered by a range of allied health disciplines as long as they have appropriate training.

For improved sustainability, it may be possible for a care worker or family member to be trained to deliver or support aspects of the program, while ensuring program fidelity is maintained.

### General comments about the equipment that can be used to support these plans:

Depending on the plan chosen, equipment may include items such as: assistive technology, exercise equipment, information booklets and any other practical aids based on the individual's goals/needs. Other comments about equipment are included below.

## *Plans*

For these plans we advise that the person living with dementia is medically cleared to ensure it is safe to participate in an exercise program.

*4.1 A multicomponent plan to reduce falls delivered at home*

An integrated falls prevention plan consists of the following three aspects (exercise, home safety and technology).

Features of plan 4.1

| Exercise | Home safety | Technology |
|---|---|---|
| • Individually tailored strength and balance exercises prescribed by a PT or EP. | • An assessment of the home, followed by individualised recommendations to improve home safety, conducted by an OT or other practitioner with suitable home safety assessment skills.<br>• Providing education on potential home hazards and how the environment impacts the person living with dementia. | • Assistive technology is implemented as required, such as sensor lights to light pathways at night, or wearable tele-assistance systems (e.g. a device to call for help if a person falls). |

Research suggests that implementation of 50% of identified home safety recommendations a minimum requirement for benefit.

Research has demonstrated effective integrated programs have an OT and PT work with the person living with dementia and their support person over alternative weeks. The first two weeks (week 1 with the OT and week 2 with the PT, etc.) include two sessions with each health professional, then one session on alternate weeks thereafter for a minimum of three months. The OT also provides follow-up calls for extra support over the final weeks of intervention. However, as mentioned, for greater sustainability, it may be possible for a care worker or family member to be trained to deliver or support aspects of the program, while ensuring program fidelity is maintained.

While the OT and PT generally have distinct roles (as detailed below), importantly, they also work together.

They share:

- physical and cognitive assessments of the person living with dementia and of the home environment
- intervention goals
- the strategies they have developed and implemented to reduce falls (these could be recommended changes to home environment, changing daily habits that pose a fall risk or modifications to the person's exercise regime)
- the individual's progress throughout the program.

The following table shows what a collaborative approach to falls prevention might look like:

An example of plan 4.1: A multicomponent plan to support mobility and physical function through a falls prevention program, delivered at home (for the dyad)

| Plan phase | OT | PT |
|---|---|---|
| Assessment | • Assesses functional cognition, physical abilities, home safety and potential home hazards. | • Assesses physical performance and reviews cognitive function for ability to engage with tailored exercise plan. |
| Active phase | • Joint problem solving strategies for the person with dementia and their support person to address any functional changes and home safety hazards.<br>• Tailored home safety recommendations detailed in written information/booklet and may include:<br>- explanation and description of hazards<br>- recommendations in context of person's cognitive abilities, e.g. removing a dark mat that may appear as a hole<br>- identifying habits that can contribute to trip hazards, e.g. removing bags usually left in the hallway<br>- identifying any assistive technology that should be acquired, e.g. sensor lights in bathroom, wearable falls monitor<br>- implementing strategies such as double-sided tape to secure floor mats<br>- recommending home modification strategies, e.g. rails in the shower.<br>• The OT also supports the family member by providing general management strategies, e.g. conversations about behavioural and cognitive changes that might occur, tips to modify the environment or ways to simplify tasks to promote independence. | • Individualised strength and balance exercises tailored to the person's cognitive and physical abilities.<br>• Exercises may include:<br>- strength-training exercises, e.g. calf raises, sit-to-stand, block step-ups<br>- static balance exercises, e.g. scaled stance positions with diminishing bases of support<br>- dynamic balance exercises, e.g. sideways walking, step-ups, stepping over an object.<br>• Exercises are made progressively more difficult through changing: repetitions, frequency, and bases of support.<br>• Providing personalised information/a booklet containing:<br>- strength and balance exercises with illustrations or photographs<br>- instructions that are accessible to someone living with dementia (clear formatting and language, shorter sentences and larger font). |

*4.2 and 4.3 Exercise plans to reduce falls*

The plans below focus specifically on exercise as a way to reduce falls (rather than the multicomponent plan above). Successful exercise interventions in the research include both individualised and group programs.

A person living with dementia may prefer to engage in an exercise-specific intervention as they may have already modified their home, or may like to try an exercise program before making further changes to the home environment.

Exercise plans 4.2 and 4.3, based on location and setting

| Plan phase | 4.2: A home based plan (for the care dyad) | 4.3: A community based plan (for a small group with up to 10 participants per facilitator) |
|---|---|---|
| Assessment | • Health assessment (e.g. by general practitioner) to ensure the person is able to exercise safely.<br>• Physical performance assessment to establish baseline level of fitness, strength and balance. For example, heart rate in seated position could be measured to determine the rate of exertion during exercise.<br>• Assessment of ability to participate on an individual basis or in a small group setting. | |
| Active phase | • Individually tailored exercises based on the personally selected goals and abilities of the person with dementia.<br>• Exercise education, including safety issues and provision of an individualised exercise booklet with instructions and illustrations or photos.<br>• Supplementing exercise with equipment as appropriate.<br>• Monitoring exercises and modifying as necessary.<br>• Support persons trained to encourage the person in their exercises and monitor progress.<br>• Phone follow-ups providing support and answering any questions regarding prescribed exercises that the person or family member may have. | • A recognised, pre-designed program including balance, strength and endurance exercises. Activities may also include executive function exercises, e.g. throwing a ball accurately.<br>• Music, singalongs, dancing and games to encourage exercise participation.<br>• Peer interaction and support to encourage group members. |

While research shows music and dancing are successful in promoting engagement in group settings, these motivational techniques may be also applied on an individual basis. In addition, general exercise education and safety issues may be appropriate for distribution in groups. Ongoing monitoring by the health professional is advisable in all contexts.

## *Key points:*

- Falls are a major cause of loss of independence and are more likely to occur in older people living with dementia.
- Research identifies interventions which may help to prevent or reduce falls.

# 5: Supporting mobility and physical function through an exercise program

**The World Health Organisation[7] highlights the benefits of physical activity for older adults to improve cardiorespiratory and muscular fitness, enhance functional health, and reduce risk of falling. Research suggests that exercise also has benefits for people living with dementia to improve physical function such as balance and mobility.**

This exercise program consists of four evidence-informed plans:

*5.1 A plan delivered at home*

*5.2 A plan delivered in the broader community*

*5.3 A multicomponent plan, delivered in residential care*

*5.4 An aerobic plan delivered in residential care*

## Setting:

The home, broader community, or residential care.

While choosing an exercise location is often a pragmatic decision, for people living with dementia the location can be important. Consider whether the environment supports the person and their changing abilities. For example, are noise and visual distraction present? Make sure the television is turned off, or if in a park move the exercise away from a noisy children's play area.

## Duration:

The duration and intensity of programs reported in the research studies varies widely. Program duration has ranged from 7 weeks to 15 months, with the number of sessions ranging from once a month to daily. Session duration ranged from 20 minutes to 120 minutes.

The suggested minimum plan duration and intensity likely to achieve a benefit is:

*Plan 5.1:*

60 minute sessions, delivered twice a week for 3 months.

*Plan 5.2:*

30–60 minute sessions, delivered twice a week for 6 months.

Plan 5.2 was based on research studies that were of relatively long durations (6 months). It is possible that shorter duration programs will also be of benefit.

*Plan 5.3:*

30–60 minute sessions, delivered 3 times a week for 3 months

*Plan 5.4:*

15–30 minute sessions, delivered 5 times a week for 6 months.

Plan 5.4 was based on research studies that were of relatively long durations (6 months). It is possible that shorter duration programs will also be of benefit.

Ongoing maintenance (i.e. continued engagement in exercise) would usually be required to maintain an achieved level of functional gain from any exercise program.

## Who can run this program?

The research studies reported programs delivered by: physiotherapists (PTs), exercise physiologists (EPs), occupational therapists (OTs), registered nurses (RNs), physical therapists, exercise scientists, trained students, family members, care workers and exercise professionals.

For improved sustainability, it may be possible for a care worker or family member to be trained to deliver or support aspects of the program, while ensuring program fidelity is maintained.

## General comments about the equipment that can be used to support these plans:

Depending on the plan chosen, equipment may include items such as: exercise bikes, treadmills, cross trainers, recumbent steppers, weights, balls, foam/rubber ground mats for safety and/or balance during exercises, cones, hoops, weighted belts, elastic bands, music and sing-alongs to encourage movement. In the home environment consider domestic alternatives. Other comments about equipment are included below.

### A note about adverse events:

In the research studies, reported adverse events were minor and included complaints of stiffness, mild-joint pain, discomfort, dizziness, musculoskeletal issues or minor falls.

These types of events may be addressed by adjusting the exercises to suit the current ability of the person, or slowing the rate at which exercise intensity or repetitions are increased. Effects such as discomfort may simply ease as exercise continues. If there are any concerns, the person should be assessed by their medical practitioner.

In a real world setting, normal risk management considerations should apply.

## *Plans*

Research highlights four different approaches to support physical function in people living with dementia. The chosen approach should depend on the individual and their setting or needs.

Exercise plans 5.1, 5.2, 5.3 and 5.4, based on location and setting

| Plan stage | 5.1 A home based plan (for individuals) | 5.2 A gym or community based plan (for individuals or small groups of 2-10) | 5.3 A multicomponent residential care based plan (for individuals or small groups of 2-8) | 5.4 An aerobic residential care based plan (for individuals or pairs) |
|---|---|---|---|---|
| Assessment | • Assessment of ability to participate on an individual basis or in a small group setting.<br>• Health assessment (e.g. by general practitioner) to ensure the person is able to exercise safely.<br>• Physical performance assessment to establish baseline level of fitness, strength and balance. For example, heart rate in seated position could be measured to determine the rate of exertion during exercise. | | | |
| Exercise approach | • Individually tailored exercises to address personally selected goals and functional or mobility needs.<br>• Exercises planned with person living with dementia and support person who is trained to act as a 'personal trainer' and encouraged to co-participate.<br>• Personalised exercise instructions including written descriptions, illustrations or photos and safety notes.<br>• Follow-ups (e.g. by phone) to check program progress and adherence. | Goal-oriented training.<br>• Intensity tailored to participants and increased over time as appropriate.<br>• Peer support used as a strategy to encourage group members. | Establish group/session goals and refer participants according to preferences and needs.<br>• Provide adaptation period to prepare people for exercise (e.g. stretching and muscle strengthening).<br>• Exercises individualised in intensity and progressively scaled.<br>• Exercise sessions supported with music.<br>• In this stage, family and care workers are trained (e.g. by PT) to deliver and support exercises. | |

| Plan stage (continued) | 5.1 A home based plan (for individuals) | 5.2 A gym or community based plan (for individuals or small groups of 2-10) | 5.3 A multicomponent residential care based plan (for individuals or small groups of 2-8) | 5.4 An aerobic residential care based plan (for individuals or pairs) |
|---|---|---|---|---|
| Exercise components | • A personally prescribed range of aerobic, strength, balance and functional exercises.<br>• Or a recognised, pre-designed program involving functional and progressive exercise done at home (usually not requiring specific gym equipment). | • Warm up and cool down, with walking, cycling, and stretching.<br>• A recognised pre-designed program including: adaptation period, strength/ resistance, functional exercise, balance and aerobic exercises. | • Multicomponent sessions that may involve a recognised pre-designed program as well as a range of exercises involving: aerobic, flexibility/ joint mobility, strength/ resistance, coordination and balance. | • Moderate to high intensity walking sessions.<br>• Cycling sessions with low resistance.<br>• Activity sessions (e.g. dance). |
| Implementation strategies | • Person with dementia should be an active participant and encouraged to make choices around their preferences.<br>• Identify the person's strengths.<br>• Tailor communication to the person's cognitive abilities and amend written instructions as necessary.<br>• Consider any adaptations that may be needed to support participation.<br>• Focus on current possibilities. | | • Exercise facilitator (e.g. physiotherapist or exercise physiologist) demonstrates exercises to aid comprehension. | |
| Progression | • As abilities improve, the exercise may increase in difficulty, duration and repetitions.<br>Periodic reassessment by the health professional as appropriate, e.g. at set time points or after a significant clinical event or change in circumstances. | | | |

Music, dance, games and equipment may be used to encourage the person to exercise. In small group settings, peers can also work to support each other. Considering the cognitive abilities of the person/s with dementia (e.g. tailoring communication or providing 1–2 step instructions) may support their engagement in exercise programs.

## *Key points:*

- The benefits of exercise include improving mobility, balance and general physical functioning.
- Research reports a range of different approaches. A plan should be selected based on the person's preferences, needs and living situation.
- As much as possible, exercises should be individually tailored to the person's abilities, interests and goals.

# Supporting cognition and communication

# *Supporting cognition and communication*

## Cognition

Cognition is often broken down into general cognitive function and executive function.

General cognitive function refers to a broad combination of abilities, including attention, memory, concentration and communication. Executive function is responsible for abilities such as planning, organisation, and problem-solving.

Dementia is usually associated with changes to cognitive abilities, however the pattern of those changes varies between individuals and between different types of dementia.

This section looks at supporting cognition through exercise and cognitive interventions.

As with everyone, exercise has benefits for people living with dementia. Some studies show a small to medium positive effect of exercise for cognitive function, however, the evidence at this time remains inconclusive.

For people with dementia, some studies have shown that a cognitive program can have a positive benefit on cognitive function, but others have not. Thus, the evidence to support the use of cognitive interventions on cognitive function also remains inconclusive.

## Communication

An important aspect of cognition is communication. As with other abilities impacted by changes in cognition, changes in the ability to communicate can be a common source of frustration amongst people living with dementia and family or care workers. Being unable to communicate needs (such as pain, hunger or emotion) can create distress. Communication ability can vary between people and differ with the time of day. Difficulties may include finding the right word, understanding what others say, articulating words and sentences, making sense when speaking, reading/writing, expressing emotions, and maintaining social conventions of communication.

Reablement programs include:

**6: Supporting cognitive function through an exercise program**

*6.1 A plan to support general cognitive function delivered at home*

*6.2 A plan to support general cognitive function delivered in the broader community*

*6.3 A plan to support general cognitive function delivered in residential care*

*6.4 A plan to support executive function delivered at home*

*6.5 A plan to support executive function delivered in the broader community*

*6.6 A plan to support executive function delivered in residential care*

**7: Supporting cognitive function through a cognitive program**

*7.1 A plan to support general cognitive function delivered in the community*

*7.2 A plan to support general cognitive function delivered in residential care*

*7.3 A plan to support executive function delivered in the community*

*7.4 A plan to support executive function delivered in residential care*

**8: Supporting communication through a communication program**

*8.1 A plan for the person with dementia to support their communication and engagement*

*8.2 A plan for care workers or family members to support communication in the person living with dementia*

*8.3 A plan for care workers or family members to improve their own communication skills, knowledge and reduce stress*

Cognitive strategies may be new to allied health practitioners. Refer to the *technical guide* for comprehensive details of the techniques and strategies described in these plans.

# 6: Supporting cognitive function through an exercise program

**Programs involving exercise have been shown to support everyday living activities, improve physical function and help reduce the risk of falls (refer to p. 24 and p. 45 of this *handbook*). The World Health Organisation[7] highlights that people who are physically active also have better cognitive function.**

**Exercise programs have also been shown to support general cognition, executive performance and learning and memory in people living with dementia, although the evidence is more limited.**

While these plans have been listed in a way that follows the specific research studies, it is possible that an exercise program which aims to support general cognitive function may also have an effect on executive function, and vice versa.

This exercise program consists of six evidence-informed plans:

- *6.1 A plan to support general cognitive function delivered at home*
- *6.2 A plan to support general cognitive function delivered in the broader community*
- *6.3 A plan to support general cognitive function delivered in residential care*
- *6.4 A plan to support executive function delivered at home*
- *6.5 A plan to support executive function delivered in the broader community*
- *6.6 A plan to support executive function delivered in residential care*

## Setting:

The home, broader community or residential care.

While choosing an exercise location is often a pragmatic decision, for people living with dementia the location can be important. Consideration needs to be made of whether the environment supports the person and their changing abilities. For example, are noise and visual distraction present? Make sure the television is turned off, or if in a park, move the exercise away from a noisy children's play area.

## Duration:

The duration and intensity of programs reported in the research studies varies widely. Program duration has ranged from 6 weeks to 15 months, with the number of sessions ranging from daily to weekly. Session duration ranged from 30 to 120 minutes.

The suggested minimum plan duration and intensity likely to achieve a benefit is:

*Plans 6.1 and 6.2:*

45 minute sessions delivered 2–3 times a week for 6 months.

*Plan 6.3:*

45 minute sessions delivered 4–5 times a week for 8 months.

*Plans 6.4 and 6.5:*

60 minute sessions delivered 1–2 times a week for 7 months.

*Plan 6.6:*

30 minute sessions delivered 2–3 times a week for 7 months.

The plans were based on research studies that were of relatively long durations. It is possible that shorter duration programs will also be of benefit.

Ongoing maintenance (i.e. continued engagement in exercise) would usually be required to maintain an achieved level of functional gain from any exercise program. For program sustainability, this could be supported by a family member or care worker trained by the health professional.

## Who can run this program?

In the research, the following people conducted programs: occupational therapists (OTs), physiotherapists (PTs), family members, care workers, certified exercise trainers and trained research assistants.

## General comments about the equipment that can be used to support these plans:

Depending on the plan chosen, equipment may include items such as: exercise bikes, treadmills, cross trainers, cycling machines, weights, balls, ribbons, balance pads, material for cognitive interventions, proprioceptive stimulation, and any material for OT activities. The natural outdoors can also be used for neighbourhood walking. Other comments about equipment are included below.

### A note about adverse events:

In the research studies, reported adverse events were minor and included complaints of stiffness, mild-joint pain, discomfort, dizziness, musculoskeletal issues or minor falls.

These types of events may be addressed by adjusting the exercises to suit the current ability of the person, or slowing the rate at which exercise intensity or repetitions are increased. Effects such as discomfort may simply ease as exercise continues. If there are any concerns, the person should be assessed by their medical practitioner.

In a real world setting, normal risk management considerations should apply.

## *Plans*

### Plans to support general cognitive function

Exercise plans 6.1, 6.2 and 6.3, based on location and setting

| Plan features | 6.1 A home based plan (for individuals or care dyads) | 6.2 A gym or community based plan (for individuals or small groups of 2-10) | 6.3 A residential based plan (for individuals, care dyads or small groups) |
|---|---|---|---|
| Assessment | • Assessment of ability to participate on an individual basis or in a small group setting.<br>• Health assessment (e.g. by general practitioner) to ensure the person is able to exercise safely.<br>• Physical performance assessment to establish baseline level of fitness, strength and balance. For example, heart rate in seated position could be measured to determine the rate of exertion during exercise.<br>• Consider cognitive assessment to establish baseline function. | | |
| Exercise approach | • A recognised, pre-designed program or a personalised program.<br>• Personalised exercise instructions including written descriptions, illustrations or photos and safety notes.<br>• Support person encouraged to do the exercises and trained to act as a 'personal trainer' to the person living with dementia. | • Provide adaptation period to prepare and familiarise people with exercise.<br><br>Peer support used as a strategy to encourage group members.<br><br>Exercises individualised in intensity<br><br>If appropriate, culturally, generationally or personally specific music can be used to support engagement. | • Strategies include: music, dance, multicomponent programs and aerobic exercises.<br>• Tailored programming for individuals. |

| Plan features (continued) | 6.1 A home based plan (for individuals or care dyads) | 6.2 A gym or community based plan (for individuals or small groups of 2-10) | 6.3 A residential based plan (for individuals, care dyads or small groups) |
|---|---|---|---|
| Exercise components | Warm up activities may be beneficial.<br>• Individual progresses through three levels of challenge.<br>• Exercises focus on balance, upper and lower body strength.<br>• Daily exercises may also be accompanied by brisk neighbourhood walking. | • Warm up and cool down, with walking, cycling, and stretching.<br>• Increase intensity until aerobic training level at moderate to high intensity is achieved. | • Multicomponent exercise plan incorporating:<br>- aerobic exercises (including moderate to high intensity walking or cycling), balance, endurance and functional exercises<br>- a music dance program with focus on balance, flexibility, upper and lower body strength<br>- a cognitive component e.g. art therapy, recreational activities, handicrafts. |
| Progression | • As abilities improve, the exercises may increase in difficulty, time and repetition.<br>Periodic reassessment as appropriate, e.g. at set time points or after a significant clinical event or change in circumstances. | | |

While research shows music and dancing are successful in promoting engagement in group settings, these motivational techniques may be also applied on an individual basis.

## Plans to support executive cognitive functioning

Exercise plans 6.4, 6.5 and 6.6, based on location and setting

| Plan features | 6.4 A home based plan (for individuals or care dyads) | 6.5 A gym or community based plan (for individuals or small groups) | 6.6 A residential care plan (for individuals, care dyads, or small groups) |
|---|---|---|---|
| Assessment | • Assessment of ability to participate on an individual basis or in a small group setting.<br>• Health assessment (e.g. by general practitioner) to ensure the person is able to exercise safely.<br>• Physical performance assessment to establish baseline level of fitness, strength and balance. For example, heart rate in seated position could be measured to determine the rate of exertion during exercise.<br>• Consider assessing executive function to establish a baseline. | | |
| Exercise approach | • Goal-oriented individually tailored exercises to address functional or mobility needs.<br>• Exercises planned with person living with dementia and support person who is trained to act as a 'personal trainer'. | Goal-oriented training. Intensity tailored to participant's ability and increased over time as appropriate.<br>Peer support used as a strategy to encourage group members.<br>If appropriate, culturally, generationally or personally specific music can be used to support engagement. | |
| Exercise components | • Multicomponent tailored program including aerobic, strength, balance and executive function exercises. | Warm up and cool down with walking, cycling, and stretching. | |

| Plan features (continued) | 6.4 A home based plan (for individuals or care dyads) | 6.5 A gym or community based plan (for individuals or small groups) | 6.6 A residential care plan (for individuals, care dyads, or small groups) |
|---|---|---|---|
| Exercise components (continued) | | • Structured non-aerobic exercises including stretching, limb movements, fine-motor movements, hand-eye coordination and balance.<br>• Recognised, pre-designed exercise program including aerobic, balance, strength and executive function exercises.<br>Group exercises could also incorporate music, and gentle aerobic exercises.<br>Individualised exercises could also include aerobic alone or in combination with strength exercises. | • Multidisciplinary sessions including: e.g. PT (strength, balance, cognition, motor coordination, agility, flexibility and aerobic endurance), OT (motor coordination, functional capacities and cognition).<br>• Group exercises including music, muscle training and gentle aerobic exercises.<br>• Individualised exercises including aerobic alone or in combination with strength. |
| Progression | • As abilities improve, the exercise may increase in difficulty, time and repetitions.<br>Periodic reassessment by the health professional as appropriate, e.g. at set time points or after a significant clinical event or change in circumstances. | | |

## *Key points:*

- As well as improving physical function and helping with reducing falls, exercise may support cognitive function, although the evidence at this time is limited.
- A range of professionals and non-professionals can support an exercise intervention.
- Exercises can take place in many different settings (at home, in the community or in a gym, and in residential care).
- An intervention approach should be based on the person's self-identified goals, abilities and their living situation.

# 7: Supporting cognitive function through a cognitive program

**Cognitive function may be supported by cognitive approaches, however, the evidence-base is limited at the present time. We have built plans to support general cognitive function and executive cognitive function.**

The plans outlined below are based on the published research, grouped according to whether the research addressed general or executive cognitive function. It is possible that a cognitive program which aims to support general cognitive function may also benefit executive function, and vice versa.

Because many aged care providers and practitioners will have limited experience delivering cognitive interventions, we suggest that practitioners consult the *technical guide*, as well as the original research, if considering a cognitive program. The plans provided in this section of the *handbook* should be seen as an outline only.

The four plans are:

- *7.1 A plan to support general cognitive function delivered in the community*
- *7.2 A plan to support general cognitive function delivered in activity centres or residential care*
- *7.3 A plan to support executive function delivered in the community*
- *7.4 A plan to support executive function delivered in residential care*

## Setting:

The home, broader community, or residential care.

## Duration:

The duration and intensity of programs reported in the research studies varies widely. Program duration has ranged from 4 weeks to 24 months, with the number of sessions ranging 1 to 6 times a week. Session duration ranged from 20 to 120 minutes.

The suggested minimum plan duration and intensity which may offer benefit is:

*Plans 7.1 and 7.2:*

60 minute sessions, delivered 3–4 times a week for 5–6 months.

*Plan 7.3:*

90 minute sessions, delivered twice per week for 3 months.

The program duration in the published research ranged from 45 minutes to 4 hours, but given sustainability issues with a 4 hour program, we feel that a minimum 90 minutes is appropriate.

*Plan 7.4:*

30–45 minute sessions, delivered 3–5 times a week for 2 months.

## Who can run this program?

In the research, the following people conducted programs: psychologists, OTs, RNs, speech pathologists, social workers, family members, care workers and neuropsychologists.

For improved sustainability, it may be possible for a care worker or family member to be trained to deliver or support aspects of the program. It is important that program fidelity is maintained.

### General comments about the equipment that can be used to support the plans:

Depending on the plan chosen, equipment may include items such as: blackboard/ whiteboard, calendar, clock, scrap books, workbooks, pens, photos, newspapers, diary, games, computer and software. Materials for motor exercises (e.g. a ball), everyday living activities or other creative tasks. Other comments about equipment are included below.

Cognitive tasks can create frustration and a sense of failure if activities are not designed or carefully graded to the abilities of participants (e.g. in terms of task complexity or time expected for engagement), particularly when the level of difficulty increases. Frustration can be avoided and engagement enhanced when tasks chosen are age and culturally appropriate, meaningful, and graded for their abilities. Facilitators (i.e. health professionals) can provide cues to help guide answers and discussion. The facilitator may also need to supervise various tasks, initiate and stimulate discussion, encourage engagement and participation, and demonstrate activities.

## *Plans:*

### Plans to support general cognitive function

Because these cognitive approaches are a specialised field, practitioners should refer to the *technical guide* and the original research for details.

*7.1 A cognitive plan to support general cognitive functioning, delivered in the community (for individuals, care dyads, or small groups of 5–7).*

The main features of this plan are outlined below.

Features of plan 7.1

Although not specified in the research studies, supporting the identification of personally meaningful goals where possible may help to individualise activities and increase engagement.

- Sessions may begin with a brief relaxation exercise (e.g. based on breathing) and spatial/temporal orientation (using orientation board). At this stage the person could also be encouraged to:
  - use compensatory strategies (such as using a calendar or a diary as a reminder of the current day and upcoming events to compensate for memory changes), and to
  - interact socially through reminiscence (e.g. talking about their life).
- Facilitator-guided group reminiscence discussions: e.g., using familiar objects to stimulate discussions based on taste, smell, touch.
- Communication is stimulated through:
  - highlighting relevant verbal content, e.g. retelling important life events
  - communicating about functional abilities, discussing hobbies and daily home activities
  - discussing topics of general interest—such as famous people or historical events.
- Training in the use of external memory aids (e.g. using a diary to help trigger memory) in group sessions and at home by family members. Facilitator can use verbal instructions or demonstration.
- Training in cognitive strategies to support everyday functioning:
  - errorless learning technique (i.e. providing high levels of prompting to support learning of correct procedures, then reducing the amount of prompting provided as skills improve)
  - face/name associations to support remembering
  - language training (e.g. through discussing interesting themes with the group)
  - training in everyday living skills (e.g. writing a list for shopping, or putting on a load of washing)
  - general social activities (e.g. visiting a museum or going to the movies)
  - spaced retrieval training (practising remembering over increasingly longer periods of time)

### Specifically for care dyads

- Family members can be trained and provided with a manual that can assist them to run sessions at home.
- Home sessions can involve orientation, discussing topics of general interest, and memory, attention and visuospatial exercises.
- Encouraging the person living with dementia to provide spontaneous or cued answers.
- The family member is encouraged to informally involve the person with dementia in reality-based communication 2–3 times throughout the day, e.g. discussing current events.
- Programs can also include other general support, such as providing the care dyad with education on dementia and encouraging family members to attend a support group.

*7.2 A cognitive plan to support general cognitive functioning, delivered in activity centres or residential care (for small groups of 3-10).*

The main features of this plan are outlined below.

Features of plan 7.2

- Session warm up activities:
  - Gentle non-cognitive exercises which may involve throwing a ball around or a group social activity (e.g. singing, group discussions and introductions).
  - Reality orientation with a focus on comparing the past to the present day, e.g. an orientation board (a board that keeps track of relevant present information such as day, date, weather), comparing old and current newspapers, looking at personal photographs (or photographs of the local area) from the past and present. May also involve materials that stimulate all five senses.
- Reminiscence:
  - Unlike reality orientation, historical accuracy is not important in this exercise; it is about the person's own recollection of the past.
  - Personal photos or old images of local scenes, books, magazines and newspapers can be used to stimulate reminiscence and discussion.
- Cognitive stimulation exercises:
  - Topics such as: using money, word games, famous faces, and present day topics are used to stimulate conversations and thinking.
  - Activities such as: spelling games, simplified bingo, dominoes, naming objects, completing a personal daily diary, paper/pen exercises, word jumbles, matching symbols into pairs, picture puzzles.
- Program may involve a multicomponent approach to supplement the cognitive exercises:
  - Physical exercises, e.g. bowling, croquet, balancing a tennis ball on a Frisbee and passing it around.
  - Training in everyday living skills, e.g. practise preparing a snack.
  - Creative tasks, e.g. gardening, working with wood or art activities.

## Plans to support executive function

7.3 A cognitive plan to support executive functioning, delivered in the community *(for individuals or small groups of 2–10).*

Some of the features of this plan are outlined below. Practitioners should refer to the *technical guide* for greater detail.

Features of plan 7.3

- Sessions may begin with spatial/temporal orientation, e.g. talking about where the program is taking place, what day it is etc.
- Identify, develop and address personally meaningful goals.
- Cognitive rehabilitation techniques:
  - Providing practical strategies and aids to support goal attainment (such as using labels to help the person remember where things are kept around the house). Examples of strategies may include compensatory skills or errorless learning techniques.
  - Teaching techniques for learning new information, e.g. face-name learning, spaced retrieval, dual cognitive support (i.e., providing cues and enhancing the organisation and identification of the most important information to be remembered).
  - Training in everyday living skills.
  - Practise in maintaining concentration and attention e.g. to keep track of where they are up to when reading the paper.
  - Stress management strategies.
- The person living with dementia is encouraged to practise/implement learned techniques between sessions. The family member is encouraged to join for the last 15 minutes of each session to learn how to best support the person between sessions and how to encourage them to continue to work on goals.
- Family member is trained in providing stimulating activities that promote conversation, memory and problem-solving. The family member is also encouraged to provide positive reinforcement.

### For the group

- Focus on developing skills in self-management, self-efficacy, and empowerment for both the person living with dementia and the family member.
- The family member and person living with dementia participate in separate sessions run simultaneously. These sessions aim to support everyday living activities, self-efficacy, problem-solving skills, and using their own resources e.g. using a diary to manage daily schedules.
- Sharing experiences, group discussions, peer support and encouragement in overcoming personal limitations.

*7.4 A cognitive plan to support executive function for people living in residential care (for individual or small group of 3–4)*

There is limited information in the research to inform this plan. Therefore facilitators and staff may need to refer to the strategies listed in plan 7.3.

Some features of this plan are outlined below.

Features of plan 7.4

- Group activities such as spelling games, bingo, dominoes.
- Pen/paper exercises which may include writing in a personal diary, or using a specifically designed booklet of cognitive stimulation exercises.
- Computer-based activities, such as games with increasing levels of difficulty.
- Activities designed to address specific cognitive domains e.g. attention, visuo-spatial memory, verbal fluency, praxis (learned motor functions e.g. using a can opener to open a tin).

## *Key points:*

- A range of cognitive programs and strategies may support general cognitive function and executive function in people living with dementia.
- Where possible, work with the person to support them in setting individual goals.
- Ensure the strategies and outcomes of the program are matched to the person's abilities.

# 8: Supporting communication through a communication program

**Communication is an important aspect of cognition. Communication ability can be affected by dementia. Strategies exist that aim to support a person's communication abilities and/or compensate for communication deficits.**

Because many aged care providers and practitioners will have limited experience delivering communication interventions, we suggest that practitioners consult the *technical guide*, as well as the original research, if considering a communication program. The plans provided in this section should be seen as an outline only.

This communication program consists of three evidence-informed plans:

- 8.1 *A plan for the person with dementia to improve or support their communication and engagement delivered in the home, community or residential care*
- 8.2 *A plan for care workers or family members to improve or support communication in the person living with dementia*
- 8.3 *A plan for family members, care workers and other staff to improve their own communication skills, knowledge and reduce stress*

## Setting:

The home, broader community or residential care.

## Duration:

The duration and intensity of programs reported in the research studies varies widely. Programs have ranged from 2 weeks to 9 months. However, as with most other plans outlined in this *handbook*, the intensity and duration of programs required to achieve an effect is likely to be in the order of 60 to 120 minutes, delivered once or twice a week, for 2 to 3 months.

The suggested minimum plan duration and intensity likely to achieve a benefit is:

*Plan 8.1:*

60 minute sessions, delivered 2–3 times a week for 3 months.

*Plan 8.2:*

60 minute sessions, delivered once a week for 1 month, followed by a reinforcement/supervision period.

*Plan 8.3:*

90 minute sessions, delivered once a week for 10 weeks, followed by a reinforcement/supervision period.

## Who can run this program?

The research studies reported programs being delivered by: clinicians including allied health professionals (e.g. speech pathologists), nurses, psychologists, counsellors, family members and appropriately trained professional or support staff, including care workers.

For improved sustainability, it may be possible for a care worker or family member to be trained to deliver or support aspects of the program, while ensuring program fidelity is maintained.

## General comments about the equipment and supporting materials used in these plans:

Depending on the plan chosen, equipment may include items such as: supporting materials including objects to stimulate conversation/discussion, multisensory materials, photos, paper/pencils, program manual, diary, and educational DVDs.

Further details about equipment and materials are provided in the *technical guide*.

*For education videos on communication used in research, please refer to: https://www.youtube.com/channel/UCIUtBy2icw38Hxk0yPufFBw.*[8]

## *Plans*

*8.1 A plan for the person with dementia to support their communication and engagement delivered in the home, community or residential care setting (for individuals, care dyads or small groups of 3–6).*

The features outlined in the following table could form part of a communication program. For the details please refer to the *technical guide*.

Features of plan 8.1

### For the person

- Walking and conversing:
  - The individual walks with a support person while engaging in conversations tailored to the person's history, or consisting of observations from the walk (i.e. objects/events seen while walking).
  - Open-ended questions and follow-up questions are used to facilitate conversation.
- Cognitive stimulation:
  - Discussing current affairs, completing word games or creative activities (e.g. baking, indoor gardening).
- Lexical semantic stimulation designed to enhance semantic verbal processing:
  - Lexical tasks focusing on interpreting written words, sentences, and stories.
  - Exercises include: semantic categories and similarities (asking a person to select the unrelated word from a list of related words), relationships between words and paradigms, understanding the context of text or a story, recognition of nonsense sentences, and understanding definitions.
  - Group discussions around the activities should be encouraged to stimulate verbal abilities.
- Personalised life storybook:
  - A personalised memory book is developed from discussion between the support person and the person living with dementia about their life. The book is a compilation of memories, including photographs and any other meaningful material. It can also be used as a conversational aid (e.g. with visitors or staff, in residential care).

### For the dyad

- Sessions may include the dyad together in one group or separately in two groups.
- Support groups on: coping with memory changes, education on dementia, social and family relationships, daily living skills, self-esteem, planning for the future, legal and financial considerations, health considerations and stress management.

### *8.2 A plan for care workers or family members to improve or support communication in the person living with dementia*

A communication plan for care workers or family members of people living with dementia might involve any of the following (refer to the *technical guide* for more plan details):

Features of plan 8.2

#### For care workers and family members

- Communication training including:
  - Simple sentences with one topic/question per sentence.
  - Positive feedback and encouragement
  - Use of visual aids
  - Allowing sufficient time for the person to respond to an instruction or questions i.e. waiting for an answer to a question before asking more questions
  - Meaningful conversation with the person around their life and hobbies
  - Non-verbal communication, using emotions, facial expression and body language
  - Monitoring own communication and interactions i.e. ensuring positive communication and avoiding infantilising language
  - Understanding cultural differences in expression of emotion.
- Training to identify and understand non-verbal and emotional forms of communication in the person living with dementia.
- Strategies to support memory:
  - Providing reminders, environmental cues, consistent routines
  - Practicing tasks with the person
  - Breaking down activities into simpler tasks.
- Person-centred care:
  - Learning to pay attention to the person's emotions.
  - Creating person-centred environments by: checking environment safety and accessibility through environment-audit tools, ensuring the environment promotes rather than inhibits function, maintaining familiarity of the environment.
- Recognising and understanding the effects of dementia on the person (i.e. awareness, social functioning, self-care abilities). Developing skills in:
  - Assessing the person's abilities
  - Supporting the person to maintain abilities or compensate for changes

### For family members

- General education on dementia, including: what to expect, how dementia impacts skills such as communication, problem-solving strategies, understanding behaviour. This information can be tailored to the care recipient's needs.

  Education on supporting the person with dementia to make decisions (i.e. supported decision-making) about their care could be a useful approach to enhancing communication between the care dyad
- Finding pleasant tasks or events for the person with dementia to engage in. Tasks should aim to improve mood and may provide a basis for conversation.
- Family member is encouraged to keep a diary of difficulties encountered. The facilitator and family member brainstorm strategies to address these difficulties, developing written support plans.
- Monthly follow-up calls to support implementation of strategies.
- Future care planning.

### For care workers

- Observation and hands-on training during care routines with feedback sessions on implementation of strategies
- Onsite supervision and phone support.

*8.3 A plan for care workers and family members to improve their own communication skills, knowledge and reduce stress*

Communication programs for family members in the community may be delivered to the individual, to dyads or to small groups of 6-10 people.

In addition to the strategies in plan 8.2, further training can be provided to care staff and families to support their own communication with someone living with dementia:

Features of plan 8.3

### For care workers and family members

- Education and techniques provided on:
  - Dementia, effective communication, problem-solving, crisis management, managing money, staying active, recognising and understanding emotions/ behaviours, coping strategies.

Education on supporting the person with dementia to make decisions about their care (i.e. supported decision-making) could be a useful approach to enhancing communication between the care dyad

- Strategies to understand behaviour, e.g. problem-solving using an antecedent-behaviour-consequence (ABC) approach.
- Psychoeducational skills and cognitive rehabilitation training:
  - Focus is placed on enhancing the strengths and skills of the person living with dementia
  - Training to provide compensatory strategies to cope with cognitive changes.
- Tailoring care to each person, the stage of dementia and their unique care situation.
- Communicative behavioural strategies to interact with person with dementia.
- Self-monitoring of communication and interactions e.g. ensuring not to use negative communication strategies such as 'elderspeak'.
- Psychosocial communication methods such as: validation, reminiscence, motor stimulation and multisensory stimulation.
- Care support strategies:
  - Coping strategies to manage work-related stress
  - Relaxation techniques
  - Stretching/strengthening exercises.

### For care workers

- Hands-on training during care tasks.
- Ongoing supervision, formal mentoring and formal feedback after training.
- Tailored training to care worker's existing knowledge and skills.

## *Key points:*

- Communication plans may improve or support communication abilities in people living with dementia, their family, and professionals involved in their care.

# Glossary and abbreviations

**Activities of Daily Living (ADLs):** ADLs are the varying tasks that we all complete on a daily basis. They range from basic activities to more complex tasks (see p. 19 for more information). The term 'everyday living activities' is used in this *handbook, technical guide and consumer information booklet* to describe ADLs.

**Aged Care Assessment Team (ACAT) – NSW, Aged Care Assessment Service (ACAS) – VIC:** ACAT/ACAS teams consist of medical, nursing and allied health professionals. They provide assessment and assistance for older people to access appropriate Australian government community or residential services and support. An ACAT assessment is usually a once only visit. Outcomes of the ACAT assessment include development of an individualised support plan, approval for appropriate level of community support services or residential care, and referral for services as appropriate.

**Assistive technology/enabling technology:** any technology or equipment that helps a person to carry out their everyday activities more easily or more safely. Equipment can range from low tech (e.g. a walking stick) to high tech (smart phone).

**Care worker/support worker/care staff:** paid professionals who provide direct care to people who need support with their everyday living activities. Support can be provided to people living at home or in residential care. [9, 10]

**Case manager/coordinator:** helps clients achieve their goals. Involves identification of goals, planning of care, coordination of services and monitoring and follow-up of progress.

**Cognition:** the mental processes of taking in information, understanding it, storing it, and then being able to use that information in everyday life. Cognition is made up of a range of functions including general cognition (e.g. attention, memory, language, visuospatial abilities) and executive function (which involves attention, problem-solving, regulating emotions, reasoning and decision making, mental flexibility, planning, and inhibition).[11] See p 51. of this *handbook* for further information.

**Cognitive training:** involves the repeated practise of a set of standardised tasks with a focus on a specific cognitive function such as attention, memory or language.

**Commonwealth Home Support Programme (CHSP):** the CHSP is an entry-level program for older people who need assistance, aimed at providing support to maintain independence in the community and remain living at home.[12]

**Communication:** communication involves the exchange of information via talking, listening, attitude, tone of voice, facial expressions and body language. See p. 51 and p. 69 of this *handbook* for further information.

**Consumer directed care (CDC):** the ability for people impacted by dementia (both the person with dementia and when appropriate, their family) who recieve a Home Care Package to take control over the types of services and care they receive, who provides them with care, and when they are delivered.[13]

**Dementia:** refers to a collection of conditions that may be caused by a range of different pathologies that affect the brain. The most common type of dementia is Alzheimer's disease. Other common types include vascular dementia, frontotemporal dementia, or dementia associated with Parkinson's disease. Dementia results in changes to brain function, thinking, behaviour, and the ability to carry out everyday tasks. It is often described as progressing over a range of stages: early/mild, moderate, and severe/advanced.[14, 15]

**Dyad:** in the context of dementia care, the dyad consists of the person living with dementia and the person/s supporting them.[16] Referred to in this *handbook* as the care dyad.

**Enablement:** the aim of enablement is to identify and support a person's capacities and provide opportunities for them to have and maintain control over their own life and experiences. Various services can help enable the person when they have experienced a decline in functional ability (reablement, restorative care, rehabilitation).[17, 18]

**Environment:** the factors around us that influence the way in which we are able to participate in daily activities. Environment includes physical, social, cultural and economic aspects.

**Exercise:** planned, structured and repetitive physical activity to improve or maintain physical fitness and ability.

**Exercise physiologist (EP):** allied health professionals with expertise in the design, delivery

and evaluation of safe and effective exercise interventions for people with a range of health/medical conditions.[19]

**Facilitator:** a person coordinating or running a reablement program, or implementing specific strategies outlined in a reablement plan. A facilitator could be a health professional, or appropriately trained family members, support persons or care staff.

**Fall:** a fall is an unexpected event (e.g. a slip or trip) in which the person loses balance and ends up on the floor, ground or lower level.[20]

**Family member/support person:** a family member, friend or neighbour who provides unpaid care and assistance to a person who has limitations in their independence. The terms 'carer', 'family carer', 'care giver' or 'informal carer' are sometimes used.[21, 22]

**Functional ability:** a person's ability to engage in everyday activities within a range of life situations.

**Functional exercise:** exercises designed to make it easier to carry out everyday activities. Involves whole body movements to simulate how the body would perform when doing a specific task, e.g. squats to improve the ability to transfer from sitting to standing.[23]

**Home Care Packages (HCP):** a HCP provides a package of services, often including case management, to support older people to live independently in their own homes. A HCP provides more comprehensive services for people with higher needs than available through the Commonwealth Home Support Program (CHSP). In order to access a HCP, an ACAT/ACAS assessment is required to confirm the level of support required. The HCP recipient has freedom of choice in selecting their package provider and the content of the package (see 'consumer directed care').[24]

**Home modification:** as a person's abilities change (e.g. through ageing or conditions such as dementia), changes to the home may be necessary to support that person in remaining independent and living in their own home. These may be simple or more complex modifications, and include things such as rails in a bathroom, or ensuring that hot and cold taps are easy to identify. Funding assistance for home modifications may be accessed through Government schemes such as the Commonwealth Home Support Programme (CHSP) or the National Disability Insurance Scheme (NDIS).[25]

**Implementation fidelity:** ensuring an intervention or program is provided in the way it was intended to be delivered. Referred to as program fidelity in this *handbook*.

**Independence:** being autonomous and self-reliant. It is a personal construct that is made up of an interplay between personal and environmental factors.

**Intervention:** an intervention is a strategy or collection of strategies implemented with the aim to maintain, improve, promote or modify a person's function or health. Depending on the aim, an intervention may be conducted by a broad range of professionals.[26]

**Memory:** refers to the storing of information (e.g. about recent or past events) that can later be accessed/retrieved as required. This is called episodic memory, but there are also other types of memory, such as semantic memory (general knowledge and facts about what things are), working memory (the process of using memory to carry out a task such as remembering a phone number or to hold onto a piece of information in the short term), or procedural memory (the ability to learn how to do tasks such as tying shoelaces). Dementia can affect these different memory processes, with some types of dementia more commonly associated with difficulties in specific areas. For example, people with Alzheimer's disease often have difficulty with short-term episodic memory early in the disease.[27]

**Multidisciplinary team:** involves professionals from a range of health disciplines working together to deliver a comprehensive approach to care.

**National Aboriginal and Torres Strait Islander Flexible Aged Care (NATSIFAC):** a funding program for organisations to provide quality culturally appropriate care to older Aboriginal and Torres Strait Islander people near to their home and communities.[28]

**National Disability Insurance Scheme (NDIS):** the NDIS aims to support people younger than 65 with a permanent and significant disability to live 'an ordinary life'. The program assists with personal care and support, community access, therapy services and equipment.[29]

**Occupational therapist (OT):** allied health professionals with expertise in helping people to participate in their activities of daily life. These activities may range from work, hobbies, or social events, to everyday activities such as bathing, dressing or toileting. OTs work in a person-centred manner adjusting environments or tasks, or helping clients develop the skills required to achieve their goals.[30]

**Physical functioning:** a person's physical performance in areas such as strength, mobility, balance, coordination, endurance, walking speed and range of movement.[31, 32]

**Physiotherapist (PT, physio):** allied health professionals with expertise in helping people to get better from a wide range of movement disorders and health conditions. PTs assess, diagnose and treat people to help repair damage, reduce pain and stiffness, increase mobility and improve quality of life. [33]

**Psychologist (psych):** allied health professionals with expertise in assessing, diagnosing and developing strategies/treatments for a range of problems, which may include those associated with mental processes, cognition or behaviours.[34]

**Reablement:** reablement involves time-limited interventions that are targeted towards helping a person adapt to functional loss, regain the confidence and capacity to resume activities that they are no longer able to do, or to achieve specific goals that are important to them.

**Regional Assessment Service (RAS):** the RAS conducts in-home assessments to determine eligibility for people to access Commonwealth Home Support Programme (CHSP) services. RAS teams operate across Australia.[35]

**Registered nurse (RN):** health practitioners who provide nursing care. RNs are university qualified and have met the standards for registration with the relevant national standards registration board.[36]

**Rehabilitation:** the process of helping a person recover from an incident such as injury, illness, surgery, or an ongoing health condition. It is usually more intensive than a reablement or restorative care program, often conducted in a hospital setting, and provided by a multidisciplinary team, including a medical practitioner with specific skills in rehabilitation.

**Restorative care:** restorative care involves time-limited interventions, generally led by allied health professionals, that allow a person to make a functional gain or improvement after a setback, or in order to avoid preventable injury.[5]

**Short-Term Restorative Care (STRC):** a time-limited service (provided over 8 weeks) that aims to support older people to continue living independently in their homes and delay the need for long-term care.[37]

**Social worker:** allied health professionals with a focus on improving human wellbeing by addressing any external factors that may limit the person's wellbeing at both a personal and social level.[38]

**Speech pathology (SP):** allied health professionals with expertise in diagnosing and treating communication disorders, ranging from difficulties with speaking, understanding language, methods of communication, and swallowing.[39]

**Supported decision-making:** 'the process where a person with a disability (e.g. dementia) is enabled to make or communicate decisions with respect to personal or legal matters.'[40]

**Transition Care:** short-term care after a stay in an acute hospital to assist older people in recovery and to provide support in decisions regarding long-term living arrangements. Transition care focusses on individual goals and provides access to a package of services e.g. physiotherapy, nursing, personal care and social work.[41]

**Wellness:** 'wellness is an approach that involves assessment, planning and delivery of supports that build on the strengths, capacity and goals of individuals, and encourage actions that promote a level of independence in daily living tasks, as well as reducing risks to living safely at home.'[5]

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This *handbook* presents evidence-informed reablement programs for people living with dementia to help support and maintain their independence and function, along with practical tips and suggestions for making programs more sustainable.

Importantly, this *handbook* also aims to both inform and empower people living with dementia, their families, support persons and service providers—providing them with the tools to choose, receive and deliver meaningful and effective programs.