

CACHE Level 2

Certificate in the Principles of Dementia Care

EQUALITY AND DIVERSITY

ACTIVITIES

INTERACTION

PERSON-CENTRED

MEDICATION

COMMUNICATION

Workbook 1

Section 1: Understanding dementia

In this section, you will learn about dementia, its causes and the way it affects individuals. You will learn about the different types of dementia and how it affects the functions of the brain. You will also look at social and medical models of dementia and how attitudes towards the illness can affect individuals with dementia.

What is meant by the term 'dementia'?

Please read the following as it will help you to answer question 1.

Knowledge Activity 1: What does the term 'dementia' mean to you?
Make some notes in the space below.



The term 'dementia' is often misunderstood and some people use the terms 'dementia' and 'Alzheimer's' interchangeably, thinking that they are one and the same thing. What many people don't realise is that dementia is not an illness or disease in itself, but is **a broad term which is used to describe a range of signs and symptoms which involve a progressive decline (gradual deterioration) in a person's mental abilities.** This decline affects a person's ability to:

- remember
- make rational judgments
- communicate

Furthermore, this decline is often accompanied by changes in personality and behaviour, and will inevitably impact on a person's ability to carry out everyday activities such as cooking, cleaning, washing and dressing.

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This decline is a result of the damage caused to the brain by specific conditions such as Alzheimer's disease or by trauma within the brain, for example a stroke can lead to vascular dementia. Whatever the cause, the end result will be the death of neurones (brain cells), leading to chemical and structural changes within the brain. Although it is normal for brain cells to die throughout the course of a person's life, the rate of cell death as a result of dementia is much more rapid and severe.

Dementia is progressive and degenerative which means that the symptoms associated with it will gradually get worse over time. As more brain cells get damaged or die, the more difficult day-to-day living will become for the person with dementia.

Key functions of the brain that are affected by dementia

Please read the following as it will help you to answer question 2.

The brain and spinal cord make up the central nervous system, and it is this that controls all of our body's functions. Like any other organ within the body, the brain is made up of cells. Within the brain there are billions of nerve cells that are known as neurons. These neurons communicate with each other and with other parts of the body by sending messages (impulses) via a system of nerve pathways.

The brain sends signals to the body and to other parts of the brain in the form of electrical impulses. These signals travel along the neurons by jumping the gaps between them (synapses) with the help of neurotransmitters (chemical messengers).

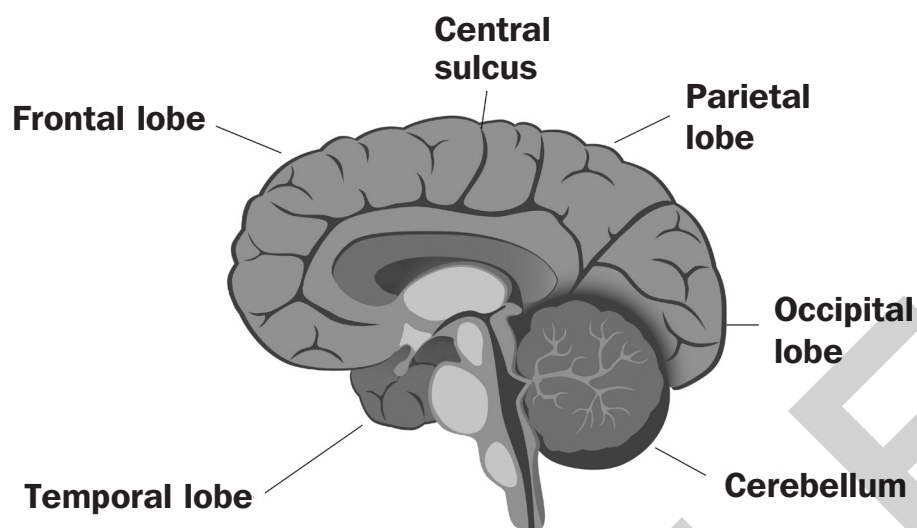
These chemical and electrical signals are necessary in controlling our bodily functions – for example, language, decision-making, memory, personality, behaviour, sensing and interpreting our environment, and controlling muscle movements.

If the neurons and synapses of the brain become damaged by dementia they will have difficulty in carrying the messages that tell the sections of the brain what to do. Depending on the area of the brain affected, this can result in changes to the way the individual thinks, or may result in physical impairments, personality and behavioural changes or the inability to perform certain functions.

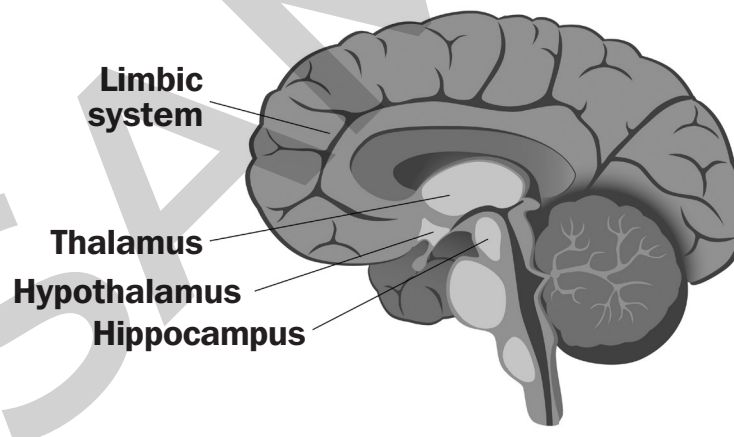
You do not need to know the complexities of the brain to arrive at an understanding of dementia, but it is helpful to have a basic understanding of the main functions of each area. This is useful when considering that different conditions impact on different areas.

It is important to realise that the damage caused will vary from person to person and will also be dependent on the type of dementia and the area of the brain affected. We will be looking at the different types of dementia a little later in this workbook, but here we will consider the key functions of the brain that can be affected by dementia.

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- **The frontal lobe** is responsible for movement, emotional behaviour, personality, interpretation and feeling.
- **The parietal lobe** is responsible for language, spatial awareness and recognition.
- **The temporal lobe** is responsible for long-term memory, speech and hearing.
- **The occipital lobe** is responsible for vision.
- **The cerebellum** is responsible for balance, posture and muscle coordination (movement).



- **The limbic system** is responsible for emotions and smell.
- **The hypothalamus** is responsible for regulating thirst, appetite, body temperature, sleep cycles and patterns of sleep.
- **The thalamus** is responsible for processing sensory information and signalling sensations of pain.
- **The hippocampus** is responsible for converting recent memories into stored memory.

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So what difficulties might a person with dementia experience?

The difficulties a person with dementia might experience will be dependent on the area(s) of the brain that has been affected by dementia. The table below summarises the sorts of difficulties a person with dementia may have according to the areas of the brain that are affected by dementia.

| Area of the brain | Effects of damage to this area of the brain |
|-----------------------|--|
| Frontal lobe | <ul style="list-style-type: none">● difficulties with planning, organising and interpretation● loss of spontaneity in interacting with others● difficulties with focusing on tasks● mood changes● changes in social behaviour – the individual may exhibit ‘inappropriate’ behaviour and think that their behaviour is acceptable● changes in personality● difficulty with problem solving● difficulties with expressing language |
| Temporal lobe | <ul style="list-style-type: none">● difficulty in recognising familiar faces● difficulty in understanding spoken words● difficulty with identification of, and verbalization about, objects● short-term memory loss● interference with long-term memory● increased and decreased interest in sexual behaviour● inability to categorise objects● right lobe damage can cause persistent talking● increased aggressive behaviour |
| Parietal lobe | <ul style="list-style-type: none">● inability to attend to more than one thing at a time● difficulties with recognising familiar objects● problems with reading, writing and drawing● difficulty in distinguishing left from right● difficulty with doing mathematics● difficulties with eye and hand coordination |
| Occipital lobe | <ul style="list-style-type: none">● visual disturbances● hallucinations● visual agnosia (inability to recognise things)● difficulties with reading and writing |

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Cerebellum

- difficulties with coordinating fine movements
- difficulties with walking, increasing risk of falling
- tremors
- vertigo
- slurred speech

Knowledge Activity 2: Think about a person with dementia that you have supported.



What difficulties does this person experience as a result of their dementia?

Which part of the brain do you think has been affected by the dementia?

Did you know?



In the United Kingdom, more than 820,000 people are living with dementia. Worldwide, at least 44 million people are living with dementia.

Conditions that could be mistaken for dementia

Please read the following as it will help you to answer question 3.

If a person starts to display signs of cognitive impairment, it should not automatically be assumed that the person has dementia. This is because there are other conditions that have similar symptoms to those of dementia. It is therefore important that the individual is carefully assessed by their doctor, to ensure that other conditions such as depression, delirium and age-related memory impairment can be ruled out. These conditions also affect cognitive processes and can therefore easily be mistaken for dementia. We will now look at these in more detail.

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Depression

Depression is a condition that can be triggered by life events and can be caused by chemical imbalances in the brain. Depression is not the same thing as occasionally feeling 'low' in mood. It is a persistent and debilitating condition. A person who is depressed can often show similar symptoms to a person who has dementia, for example problems with memory and concentration. People who are depressed may also lack motivation, which can affect their ability to manage everyday tasks, leading to self-neglect and withdrawal. As these problems are commonly seen in people with dementia, they may commonly be mistaken for dementia when in fact the person is experiencing depression.

Delirium

Delirium is also known as a 'toxic or acute confusional state' and refers to a type of confusion that often appears suddenly, progresses quickly and is usually reversible. The most common cause of delirium is an infection such as a urinary tract infection (UTI). Other causes include the side effects of some medications, dehydration, pain, anaemia and hormone imbalances.

A person who has delirium can often show similar symptoms to a person who has dementia. For example, the individual may experience memory loss, disorientation, hallucinations and language disturbances.

Although the symptoms of delirium are similar to those of dementia, they will improve once the underlying cause has been treated.

Age-related cognitive impairment

Age-related cognitive impairment is a normal part of the ageing process. As people get older, changes occur in all parts of the body, including the brain. As a result, some people may notice that it takes longer to learn new things, they don't remember information as well as they did, or they lose things like their glasses. These are usually signs of mild forgetfulness, not serious memory problems. However, this age-related forgetfulness can often be mistaken as an early sign of dementia.

DEMENTIA AWARENESS

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