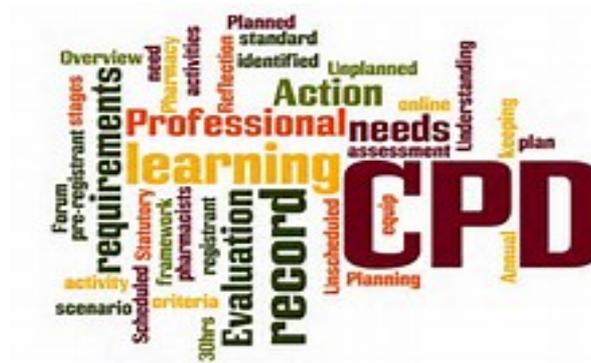


DEMENTIA AWARENESS

INSTRUCTIONS

1. Go through the slides, you can print the materials
2. Read through and make notes
3. When you feel ready you can take the test
4. This module should take no more than 60 minutes to complete and successful completion will award you 1 CPD point



INTRODUCTION

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Dementia is a syndrome that is associated with a decline in the function of the brain where patients experience one or more symptoms including memory loss, impairment of cognitive function, confusion and disorientation. Current statistics show that in the UK alone, 850,000 of the population suffer from dementia of which 700,000 people are in England, over 45,000 in Wales, almost 20,000 in Northern Ireland and 70,000 in Scotland. It is estimated that by 2050, the incidence of dementia will rise to over 2 million of the UK population (*Alzheimer's Society, 2016*).

The aims and objectives of this module are as follows:

- Identify five common types of dementia
- Describe dementia and its common signs and symptoms
- Identify the risk factors likely to increase the incidence of dementia
- Describe relationship-centred care
- Have an understanding of the Six senses framework
- Recognise and effectively manage challenging behaviours

The World Health Organisation (WHO) define dementia as:

'a syndrome, usually of a chronic or progressive nature, caused by a variety of brain illnesses that affect memory, thinking, behaviour and ability to perform everyday activities. Dementia is overwhelming not only for the people who have it, but also for their caregivers and families. It is one of the major causes of disability and dependency among older people worldwide.'

THE BRAIN:

Before discussing the symptoms and management of dementia, it is important to have a basic understanding of the brain and the main sections of the brain and the purpose they serve for sustaining human life and learning.

The brain is the body's main control and command centre for the central nervous system. It receives input from the sensory organs and sends output to the muscles. The **human brain** has the same basic structure as other mammal **brains**, but is larger in relation to body size than any other brains. It weighs approximately 1.5kgs and is an extremely complex organ with 50-100 billion nerve cells and over 1 trillion connections between nerve cells (also known as synapses) that allows message to be transmitted and sent to other cells in the body. It is ultimately responsible for all thought and movement that the body produces. This allows humans to successfully interact with their environment, by communicating with others and interacting with inanimate objects near their position. If the brain is not functioning properly, the ability to move, generate accurate sensory information or speak and understand language can be damaged as well.

PARTS OF THE BRAIN:

Cerebrum	The cerebrum or cortex is the largest part of the human brain, associated with higher brain function such as thought and action. The cerebral cortex is divided into four sections, called "lobes": <ul style="list-style-type: none">• the frontal lobe,• parietal lobe,• occipital lobe• and temporal lobe.
Limbic System	Is found buried within the cerebrum. Like the cerebellum, this revolutionarily the structure is rather old. This system contains the thalamus, hypothalamus, amygdala, and hippocampus. And is responsible for processing of memory and learning
Cerebellum	The cerebellum, or "little brain", is similar to the cerebrum in that it has two hemispheres and has a highly folded surface or cortex. This structure is associated with regulation and coordination of movement, posture, and balance.
Brain Stem	This structure is responsible for basic vital life functions such as breathing, heartbeat, and blood pressure

FACTS ABOUT DEMENTIA:

- Dementia affects both men and women in all social groups
- All ethnic groups are susceptible for dementia
- Whilst there is a higher incidence of dementia in those over the age of 65 years it can affect those under the age of 65 also.

Incidence:

- 1:1,400 in 40- 65 year olds
- 1:100 in 65- 69 year olds
- 1:25 in 70-79 year olds
- 1:6 in 80+ year olds

TYPES OF DEMENTIA:

In an individual who has dementia, the brain 'shrinks' at a faster rate (atrophy) than what would occur during the natural ageing process. It is identified as a degenerative disease where it will gradually get worse/deteriorate and most commonly starts in the areas of the brain where learning and memories are formed. Onset of symptoms can be first noticed in relation to language and communication skills, until it has spread to other areas and normal functions of the brain are impaired. The causes of dementia are still not fully understood and the symptoms experienced will be dependent on the parts of the brain that have been affected and the disease that is present.

As a progressive illness, the physical and mental symptoms will increase over time and at present there is no cure for dementia. However conservative management can be provided to try and improve the quality life of the individual affected, and prolong the degeneration of the disease.

There are five known types of dementia of which are caused by different factors:

1. Alzheimer's Dementia
2. Vascular Dementia
3. Front- temporal Dementia.
4. Dementia with Lewy Bodies
5. Mixed Dementia

1. Alzheimer's Dementia:

Alzheimer's Dementia is the most common form of dementia where it affects 62% of the population with dementia. The cause of Alzheimer's is primarily due to the presence of deposits of plaques (protein) surrounding brain cells and entangles the nerve fibres causing interruption of the chemical connections between brain cells and some cases death of the cells.

Symptoms:

Onset of Alzheimer's Dementia is normally identified where an individual has difficulty in recalling recent event and difficulty in finding words when interacting with others. Simple tasks that can become difficult include shopping, orientating to time and place and calculations.

2. Vascular Dementia:

Vascular Dementia accounts for approximately 17% of patients with dementia. It is caused by restricted flow of rich- oxygenated blood to the brain and the brain cells die due to the inadequate supply of same. The occlusion of the blood flow can be caused by build- up of plaque/fatty blood vessels in the brain or following cerebral vascular accidents (Strokes) or multiple mini strokes (Trans- Ischaemic Accidents).

Symptoms:

Symptoms vary in Vascular dementia however the most common symptoms are as follows:

- Disorientation
- Confusion
- Difficulty in speaking/communication
- Visual loss/disturbance.

Other common early signs of widespread small vessel disease include impaired planning and judgment; uncontrolled laughing and crying; declining ability to pay attention; impaired function in social situations; and difficulty finding the right words.

3. Frontotemporal Dementia:

Only 2% of the population affected with dementia suffer from this relatively uncommon type of dementia. In frontotemporal dementia, parts of the brain that control planning, emotion and language, become damaged and the cells die.

Symptoms:

Typical symptoms that arise from this form of dementia include changes in the following;

- Behaviour
- Personality
- Speech
- Eating Habits

4. Dementia with Lewy Bodies:

Lewy bodies are tiny deposits of protein present in nerve cells and appear to affect the connections to cells which leads to the progression of nerve cells dying and loss of brain tissue. It has also been identified that in patients with Dementia with Lewy Bodies that they have a lower level of dopamine and acetylcholine, causing difficulties in motor skills (dyskinesia) and mental capabilities, similar to that of someone who suffers from Parkinson's Disease. This type of dementia accounts for 4% of the population affected with dementia.

Symptoms:

Early onset of dementia with Lewy Bodies can include fluctuating alertness, difficulties in judging distance, hallucinating and similar symptoms to Parkinson's Disease. Other characteristics include;

- Memory loss
- Visual hallucinations
- Recurrent falls
- Disturbed sleep, nightmares
- Tremors
- Stoop in stature

5. Mixed Dementia

Mixed dementia is diagnosed where an individual present with symptoms from more than one type of dementia, where the most common type is mixed Alzheimer's and Vascular dementia (please see above conditions and symptoms)

RISK FACTORS/CAUSES OF DEMENTIA:

Whilst dementia pre- dominantly is caused by disease destroying brain tissue/nerve cells and is most common in individuals over the age of 65 years, there are other factors that may contribute and increase the onset of dementia. Dementia is caused by a variety of diseases and injuries that primarily or secondarily affect the brain, such as Alzheimer's disease or stroke. The impairment in cognitive function is commonly accompanied, and occasionally preceded, by deterioration in emotional control, social behaviour, or motivation.

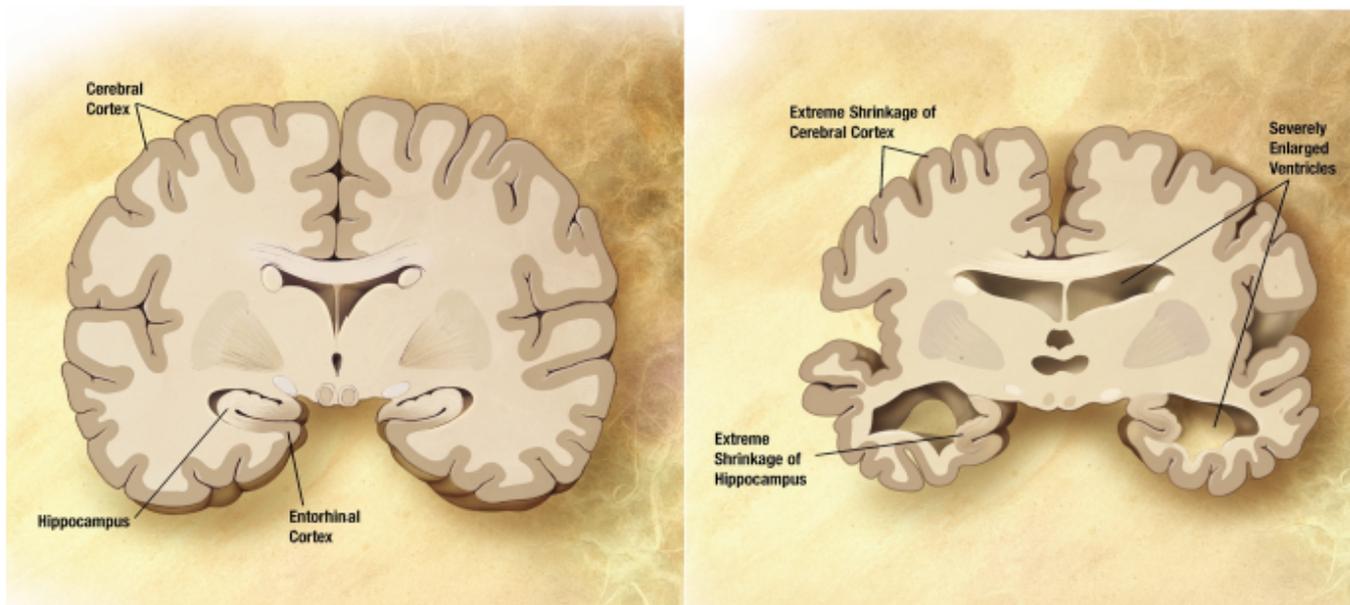
Dementia usually develops insidiously, most often after retirement age. In in 2013, there were 42,325 people with early-onset dementia (onset before the age of 65 years) in the UK. This higher figure corrects an underestimate in the 2007 Dementia UK report. Recent statistics also show that two- thirds of people diagnosed with dementia are female and at present whilst there is insufficient evidence that there is a distinctive link of genetic disposition, research has shown that familial disease is more common in those that carry a specific gene mutation and will increase the risk of individuals inheriting the mutated genes and developing some form of dementia.

RISK FACTORS:

- Strokes caused by high blood pressure and Diabetes can cause onset of Vascular dementia due to the build- up of plaques/deposits in the vessels of the brain.
- Poor diet/lack of exercise can be a factor as affects the way the heart pumps blood around the body. It allows the build- up of plaque and lipids (fatty deposits) in the arteries making the heart having to work harder than normal to supply sufficient oxygenated blood to the organs and tissues around the body.
- Excessive alcohol consumption can cause alcohol induced dementia (Wernicke-Korsokoffs Syndrome)
- Smoking also increases the risk of heart disease due to the build- up of tar in the vascular system and to the brain, which also increases the incidence of strokes.
- Increased weight can lead to increased risk of Alzheimer's disease, diabetes, heart disease and other health problems. Adopting a healthy diet, not eating too much salt and taking regular exercise can help to keep your blood pressure and cholesterol within normal limits.

DIAGNOSING DEMENTIA:

At present, there is no specific test used to diagnose dementia, and a diagnosis is only confirmed through process of elimination of excluding any other organic/underlying physiological factors that may be causing the onset of symptoms. This would normally entail the clinician taking a detailed history of current or recent illnesses, medications or onset of depression; establish a time frame of when memory problems have occurred, obtaining further history if deemed feasible from family and friends of the patient and performing memory tests such as Mini Mental State Examination (MMSE) and brain scans such as MRI and CT scans.





SYMPTOMS OF DEMENTIA:

experience the symptoms of Dementia in the same way. Different severity of the symptoms are unique to the individual and will affect Supporting an individual with dementia is paramount and it requires great empathy and reassurance, remember those affected may not be orientated to time and place and revert back to past memories. A good supportive social network and maintain comfortable surrounding will improve the quality of life for an individual with dementia.

There are two main types of dementia that affect an individual and it is important to understand the difference between the two:

- 1. COGNITIVE SYMPTOMS** Difficulty in processing information, planning, conversing, thinking, making sound decisions, forgetful and difficulty in memory recall.
For example;
 - Unable to make a cup of tea
 - Go shopping
 - Remember birthdays/anniversaries/appointments
 - Using a knife and fork
 - Misplacing items/objects
- 2. NON COGNITIVE SYMPTOMS** Changes in physical and psychological behaviour including;
 - Agitation
 - Repetitive questioning
 - Aggression
 - Psychosis
 - Inappropriate sexual behaviour
 - Hoarding
 - Shouting
 - Wandering
 - Delusional
 - Hallucinating
 - Apathy



COGNITIVE IMPAIRMENT:

An individual with dementia will show symptoms of cognitive impairment where they have difficulties in relating to thinking and memory recall. Tasks such as remembering birthdays or doctor appointments, dressing themselves, making meals, going shopping, making cups of tea and even going to the bathroom. They can mislay items or put them in the wrong place, find difficulty in communicating or expressing their needs, fail to recognise close relatives or friends and recall commands. All of the aforementioned causes tremendous stress and frustration and can lead to increase confusion and the individual becoming very upset and angry.

NON COGNITIVE IMPAIRMENT:

As previously discussed, dementia is a progressive disease and as it develops, further deterioration is identified with non- cognitive symptoms. This type of impairment refers to behavioural and psychological symptoms of dementia (BPSD). Recognising and managing these symptoms are very challenging for both carers and those in clinical practice, and it is important to ensure that appropriate management of such is set out to achieve the best quality standard of life for those affected.

Patients suffering from non- cognitive impairment can become delusional or suffer from hallucinations, where they are faced with a fixed belief of feeling threatened, being attacked or persecuted, and no matter how much reassurance or persuasion they are given will convince them otherwise as the visions they have are so vivid. Other symptoms that arise include apathy; where they have lost interest in hobbies and activities, show little or no emotion and become withdrawn from society, reduced appetite and mood where they are clinically depressed and increased anxiety. Other challenging behaviours displayed by those affected with dementia are aggression, poor sleep patterns, wandering and disorientation and in some instances, violence and aggression.

RELATIONSHIP- CENTRED CARE and SIX SENSES FRAMEWORK:

Relationship-centred care is an approach used in the provision of improving care practice for residents in care homes and seeing the care home as a 'community' and ensuring the individual, their family/friends and carers are part of that community to provide a better quality of life. It takes into account the individual needs, their relationships, unique qualities and interests of those living with dementia and utilises the 'Six Senses Framework', developed by Professor Mike Nolan (2006).

Professor Nolan was concerned with the standard of care and lack of a therapeutic rationale for those working in care homes delivering care for the elderly and those affected with dementia He identified six Senses that he believed might both provide a clearer direction for staff to ensure appropriate standards of care were upheld to improve quality of life for residents. The term Sense was chosen deliberately to reflect the subjective and perceptual nature of important determinants of care for both older people and staff. (GRIP, 2006)

These studies suggest that in the best care environments all participants experience a Sense of:

Security	Feeling free from harm or threat and prevent any distress/anxiety. This can also include the prevention of falls and maintaining physical health.
Belonging	Feeling 'part of things' and maintaining rapport/relationships. Ensure family and friends are involved in the provision of care and any discussions re: patient management
Continuity	Taking into account the individual's past including interests, hobbies etc and involving family/friends to continue activities they have always enjoyed
Purpose	Having valued goals to aim for, providing motivation and a sense of feeling they have a contribution to make.
Achievement	Acknowledging achievements and promoting independence. Avoid setting activities/goal out with the person's capabilities and limitations.
Significance	Making the individual feel important and have a sense of worth. This would include acknowledging their opinions and ensuring they participate in activities/group sessions.

CHALLENGING BEHAVIOUR:

People with dementia can exhibit behaviours that can be intimidating and in some instances, aggressive and violent. As we have previously discussed, dementia is a progressive condition and over time, the individual will become more reliant and dependent on others. As a care provider for those with dementia, it is vital that you understand or try to make sense of why the individual is displaying the behaviours at that time, identify triggers if any, and see them from the patient's perspective, not your own. Factors that contribute to a change in behaviour in patient with dementia can include any of the following:

- Change of environment/comfort zone
- Hunger
- Lack of or poor quality of sleep
- Limited interaction from others/boredom
- Loss of inhibitions
- Feeling frustrated
- Need to go to the bathroom
- Pain

There are some useful techniques that can be utilised and effectively manage behaviours displayed by individuals diagnosed with dementia;

Distraction: try to divert their attention by changing the subject, offer to take them a walk or offer them a cup of tea.

Engagement: Try to get them involved in activities such as finding out about their past, looking over some family photos to recall memories etc. or participate in games or hobbies.

Non Verbal and Verbal Communication: always use different ways of communicating to the patient, in most instances, reassurance and always speak slowly and clearly for them to understand you. Ensure that you give clear instructions of what you intend to do and explain what it involves.

Know your limits: When faced with difficult situations, never put yourself or the patient at risk. Always seek further professional advice or help if you are not able to effectively manage the task at hand.

THE SIX 'C's in DEMENTIA:

A useful checklist when delivering the best possible level of care is the Six C's in Dementia



CARE	Get to know the patient. Listen and understand their views and perceptions, remember their experiences are real to them. Reassure and maintain a safe environment
COMPASSION	Encourage independence. Always act with integrity and with empathy
COMPETENCE	Always use evidence based practice and be aware of support services around you. Consider the physical and psychological health changes for each individual.
COMMUNICATION	Always use verbal and non- verbal communication skills. Speak slowly and clearly and be patient!
COURAGE	Show commitment and support for your patient. You are an advocate and should challenge any hurdles that are put up in aid to support the needs of your patient
COMMITMENT	Commit to improve the health and well- being for dementia affected individuals and their families. Aim to inspire others and dismiss stigma that surrounds dementia.