

# Independent Methodist Churches Training

## Dementia



# Introduction

- Dementia is a group of related symptoms that is associated with an ongoing decline of the brain and its abilities. These include:
  - Thinking,
  - Language,
  - Memory,
  - Understanding
  - Judgement.
- People with dementia may also have problems controlling their emotions or behaving appropriately in social situations. Aspects of their personality may change. Most cases of dementia are caused by damage to the structure of the brain.

# How Common is dementia?

- In England alone, there are currently 570,000 people living with dementia. That number is expected to double over the next 30 years.
- Usually dementia occurs in people who are 65 or over. The older you get, the more likely you are to develop it.
- It is estimated that dementia occurs in:
  - 1.4% of men and 1.5% of women aged between 65 and 69,
  - 3.1% of men and 2.2% of women aged between 70 and 74,
  - 5.6% of men and 7.1% of women aged between 75 and 79,
  - 10.2 % of men and 14.1% of women aged between 80 and 84, and
  - 19.6% of men and 27.5% of women aged 85 or over.
- It is estimated 15,000 under 65' s suffer from dementia, however this is thought to be under-estimated.

# Types of Dementia

- Alzheimer's disease, where small clumps of protein, known as plaques, begin to develop around brain cells. This disrupts the normal workings of the brain.
- Vascular dementia, where problems with blood circulation result in parts of the brain not receiving enough blood and oxygen.
- Dementia with Lewy bodies, where abnormal structures, known as Lewy bodies, develop inside the brain.
- Frontotemporal dementia, where the frontal and temporal lobes (two parts of the brain) begin to shrink. Unlike other types of dementia, frontotemporal dementia usually develops in people who are under 65. It is much rarer than other types of dementia.

# Alzheimer's Disease

- Named after German pathologist, Alois Alzheimer, who first described the illness in 1907.
- Accounts for half of all cases of dementia
- Some sort of insight appears occasionally, leading to fluctuating depression and suicidal tendency.
- Alzheimer's disease tends to strike the temporal lobe then spread outwards as the disease progresses
- Another feature is development of difficulty with speech. Names may be forgotten but function remains e.g. pen.
- Alzheimer's disease is probably the most difficult of the dementing illnesses to distinguish from the changes of normal ageing. This is due to confusion between natural impairment of memory as a result of ageing and exaggerated memory loss as the first signs of Alzheimer's disease.

# Vascular Dementia

- The symptoms of vascular dementia can develop suddenly and quickly worsen. Or they can develop gradually over many months.
- Symptoms include:
  - increasing difficulties with tasks and activities that require concentration and planning,
  - memory loss,
  - depression,
  - changes in personality and mood,
  - periods of mental confusion,
  - low attention span,
  - urinary incontinence,
  - stroke-like symptoms, such as muscle weakness or paralysis on one side of the body,
  - wandering during the night, and
  - slow and unsteady gait (the way that you walk).

# Multiple Infarct Dementia

- Also known as M.I.D. Alzheimer also worked in this field, although he is better known for work in the field of illnesses that bear his name
- This is believed to be the second most common cause of irreversible dementia, accounting for about a third of sufferers
- One feature that helps to determine M.I.D. is the step wise nature of its progression caused by a series on mini strokes within the brain.
- The onset would be abrupt leading to the first sign which would tend to be mild forgetfulness
- Signs of the illness tend to vary, depending on which part of the brain is damaged
- The sufferers tend to regain insight into their condition for much longer than the sufferers of other forms of dementia, leading to severe depression.

# Pick's disease

- This was first described in 1892, and named after the Prague physician, Friedel Pick
- It involves wasting of the cells confined to the frontal and temporal lobes of the brain
- Moral and ethical values deteriorate very early on in the illness, with memory and language function less affected
- Pick's disease mimics Alzheimer's, however Alzheimer's sufferers may be caught shoplifting as they have absent-mindedly put articles into their bag. Pick's sufferers may well feel they should not have to pay or want to see if they can get away with it.
- The disease runs its course in 2-10 years, the average being 7 years.

# Creutzfeldt-Jakob Disease

- Also known as CJD, Jakob's disease or Creutzfeldt- Jakob syndrome.
- Named after two German Psychiatrists, Hans Creutzfeldt and Alfons Jakob
- The disease is very rare and is marked by rapid onset of dementia associated with disorders of movement
- The disease usually runs its course in 3-12 months
- The disease causes lots of small holes to appear in the brain

# Huntington's Chorea

- Named after American Physician, George Huntington
- This is a hereditary type of dementia which may occur in adults, and usually strikes in middle or early old age
- There is a 50% chance that children of a sufferer will inherit the disease, causing a dilemma as to whether a sufferer should have children.
- Jerky movements of the limbs are a feature, movement is not patterned or rhythmic, and deteriorates with time as dementia sets in. Drugs can help the movements but not the dementia.
- Early presentations are emotional depression and aggressive outbursts alternating
- Insight into the illness is rarely affected, and therefore depression followed by suicide or attempted suicide is very common
- The disease runs its course in 10 to 20 years, the average being 14 years.

# Dementia with Lewy Bodies

- ✓ The symptoms of dementia with Lewy bodies usually develop gradually but get more severe over the course of many years.
- ✓ The symptoms of dementia with Lewy bodies include:
  - ✓ memory loss,
  - ✓ low attention span,
  - ✓ periods of mental confusion,
  - ✓ delusions (believing in things that are not true),
  - ✓ difficulty planning ahead,
  - ✓ muscle stiffness,
  - ✓ slower movement,
  - ✓ shaking and trembling of arms and legs,
  - ✓ shuffling while walking,
  - ✓ problems sleeping,
  - ✓ loss of facial expression, and
  - ✓ visual hallucinations (seeing things that are not there). Usually people will see other people or animals that are not real.

# Frontotemporal Dementia

- Many of the initial symptoms of frontotemporal dementia involve changes in emotion, personality and behaviour.
- Someone with frontotemporal dementia may become less sensitive to other people's emotions.
- They may also lose some of their inhibitions.
- Other symptoms of frontotemporal dementia include:
  - aggression,
  - compulsive behaviour,
  - being easily distracted,
  - an increasing lack of interest in washing themselves, and
  - personality changes. A person who was previously withdrawn may become very outgoing, or vice versa.
  - Some people with frontotemporal dementia also have problems with language.
    - speaking far less than usual, or not speaking at all,
    - having problems finding the right words to express themselves, and
    - using many words to describe something simple. For example, saying 'a metal and wooden tool used for digging' instead of 'a spade'.

# Causes of Vascular Dementia

- ❖ Vascular dementia is caused when there is an interruption to the blood supply to the brain.
- ❖ The blood supply to the brain can become blocked during a stroke.
- ❖ Sometimes, less severe blockages to the brain do not result in a stroke, but they can damage the brain to a lesser extent.
- ❖ Not everyone who has had a stroke will go on to get vascular dementia.
- ❖ Vascular dementia can also develop if the vessels inside the brain narrow and harden. Narrowing and hardening of the blood vessels is known as arteriosclerosis.
- ❖ Know risk factors for arteriosclerosis include:
  - ❖ diabetes,
  - ❖ obesity,
  - ❖ smoking,
  - ❖ drinking too much alcohol,
  - ❖ lack of exercise, and
  - ❖ eating a high-fat diet

# Causes of Lewy Body Dementia

- Lewy bodies are small, circular lumps of protein that develop inside the brain. It is not known what causes them. It is also unclear how they damage the brain and cause dementia. One theory is that they block the effects of two neurotransmitters called dopamine and acetylcholine.
- Neurotransmitters are messenger chemicals that send information from one brain cell to another.
- Both dopamine and acetylcholine are thought to play an important role in helping to regulate many important mental functions, such as memory, learning, mood and attention. Therefore, by blocking their effects, Lewy bodies may trigger dementia.

# Causes of Frontotemporal Dementia

- Frontotemporal dementia is caused by two parts of the brain (the temporal lobe and the frontal lobe) becoming increasingly damaged and then shrinking.
- In an estimated 40 to 50% of cases, people who develop frontotemporal dementia have inherited a genetic mutation from their parents. These genetic mutations are thought to have a negative effect on a protein known as the tau protein.
- All brain cells contain tau proteins. They help to keep the brain cells stable. However, if tau proteins stop working properly, they can damage brain cells.
- If no genetic mutation is found, the causes of frontotemporal dementia remain unknown.

# Less common Causes of Dementia

- ✓ Dementia or dementia-like symptoms can have a number of less common causes, some of which are treatable. These include:
  - ✓ repeated injury to the head,
  - ✓ infections of the brain, such as meningitis or encephalitis,
  - ✓ Huntington's disease.
  - ✓ Creutzfeldt-Jakob disease (CJD), a rare and fatal condition that causes damage to the brain and nervous system,
  - ✓ an overactive or underactive thyroid gland,
  - ✓ dehydration,
  - ✓ lack of vitamin B in the diet,
  - ✓ poisoning, for example from lead or pesticides,
  - ✓ having a brain tumour
  - ✓ certain lung and heart conditions that interrupt the supply of blood and oxygen to the brain.

# Diagnosis of Dementia

- ❖ Confirming a diagnosis of dementia can be difficult, particularly when the condition is in its early stages. This is because many of the symptoms of dementia can be caused by other conditions.
- ❖ In order for dementia to be diagnosed correctly, you should have a number of different tests and assessments are needed:
  - A review of your medical history.
  - A full assessment of mental abilities.
  - A range of tests, including blood tests to rule out other possible causes of symptoms, such as a vitamin B deficiency.
  - Imaging scans, such as a magnetic resonance imaging (MRI) scan, which can provide information about the physical state and structure of the brain.
  - A review of any medications in case these are contributing to the symptoms.
  - Some of these tests can be carried out by the GP. Others will be carried out by other specialists, such as a neurologist or a psychiatrist with experience in treating dementia

# Treatment

- Cognitive stimulation
- Behavioural Therapy
- Reality Orientation Therapy
- Multisensory stimulation
- Exercise Therapy
- Medication

# Prevention

- **Preventing vascular dementia**
- While it is not possible to prevent all cases of dementia, there are some measures that can help prevent vascular dementia, as well as cardiovascular diseases, such as strokes and heart attacks. As experts in treating dementia often say, 'What is good for your heart is also good for your head.'
- The best ways to prevent vascular dementia are:
  - ❖ Eat a healthy diet.
  - ❖ Maintain a healthy weight.
  - ❖ Get sufficient and regular exercise.
  - ❖ Drink alcohol in moderation.
  - ❖ Don't smoke.

# Prevention

- There is some evidence that rates of dementia are lower in people who remain as mentally and physically active as possible throughout their lives, and have a wide range of different activities and hobbies.
- Some activities that may reduce the risk of developing dementia include:
  - ❖ reading,
  - ❖ writing for pleasure,
  - ❖ learning foreign languages,
  - ❖ playing musical instruments,
  - ❖ taking part in adult education courses,
  - ❖ playing tennis,
  - ❖ playing golf,
  - ❖ swimming,
  - ❖ group sports, such as bowling, and
  - ❖ walking.
  - ❖ There is no evidence that playing ‘brain training’ computer games reduces the risk of dementia.