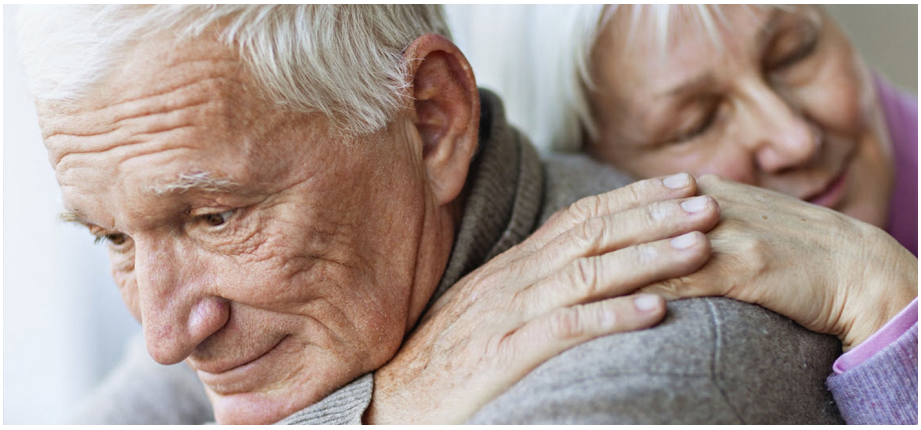

SIGHT, PERCEPTION AND HALLUCINATIONS IN DEMENTIA

A Dementia Information Resource

People with dementia may experience problems with their sight which cause them to misinterpret the world around them. In some cases, people with dementia can experience hallucinations. This factsheet considers some specific difficulties that people with dementia can have, and suggests ways to support them. Understanding potential problems and giving appropriate help, support and reassurance can greatly assist people living with dementia to feel safe, at a time when the way they perceive reality may be changing.

Jura Care Village
THE HEART AND SOUL OF OUR PEOPLE

This document was compiled by the Jura Care Village

The Jura Care Village specializes in the care of people with Alzheimer's & Dementia and is located in the Western Cape of South Africa

JURA CARE VILLAGE
Jura Lands, Beach Rd,
Hansmoeskraal,
George,
6534

www.juracare.co.za

Vision and perception

Seeing is a complicated process that involves many different stages. Information is transmitted from your eyes to your brain where it is then interpreted, alongside information from your other senses, thoughts and memories. You then become aware of what you have seen (it is 'perceived'). Problems that involve both vision and perception can be referred to as 'visuoperceptual difficulties'. As there are many different stages involved in the seeing process, various types and combinations of mistakes can occur. Common mistakes include:

- **Illusions** - what the person sees is a 'distortion of reality'. This may result from a particular characteristic of the object, such as its surface being shiny or it being the same colour as the wall behind. An example might be seeing a face in a patterned curtain.
- **Misperceptions** - what the person sees is a 'best guess' at the inaccurate or distorted information the brain has received from the eyes. This is usually the result of damage to the visual system due to diseases such as glaucoma. For example, a shadow on the carpet could be mistaken for a hole in the floor.
- **Misidentifications** - damage to specific parts of the brain can lead to problems identifying objects and people. For example, distinguishing between a son, husband or brother may become difficult.

It is easy to see how these mistakes may lead to the person saying or doing things that make others think they are having delusions. However, what the person is experiencing is not a true delusion (it is not based on incorrect reasoning or 'delusional thinking') but is the result of damage to the visual system.

A visual hallucination is different from a visuoperceptual mistake. A visual hallucination involves perceiving or seeing something that is not there in the real world (see 'Hallucinations in people with dementia' below).

Causes of visuoperceptual difficulties

Normal ageing can lead to visuoperceptual difficulties, including:

- reduced sharpness (blurring)
- needing more time to adapt to changes in light levels (eg when going from a dark room into sunlight)
- the area in which objects are seen (the 'visual field') getting smaller, and loss of peripheral vision (being able to see things outside of the direct line of vision) occurring
- pupils becoming smaller
- problems with depth perception
- shadowing from small shapes floating in the visual field (known as 'floaters').

Eye conditions that can affect visuoperception include cataracts, glaucoma, macular degeneration and retinal complications from diabetes. These can all result in changes such as blurring, partial loss of visual field and, in some cases, blindness. They can also cause hallucinations and distortion in the vision - known as Charles Bonnet syndrome.

A stroke can also cause someone to have problems with their vision. They may experience central vision loss, visual field loss, eye movement problems and visual perception and processing issues.

Sometimes medications can cause or contribute to visual difficulties. They include some drugs from the following categories: cardiovascular, non-steroidal anti-inflammatory, antibiotics, drugs for Parkinson's disease, and even eye medications.

Specific types of dementia can also damage the visual system and cause visuoperceptual difficulties. These include Alzheimer's disease, Parkinson's disease dementia, dementia with Lewy bodies and vascular dementia. Rarer forms of dementia, such as posterior cortical atrophy (PCA), can also cause visuoperceptual difficulties.

Visuoperceptual difficulties in people with dementia

The specific difficulties a person experiences will depend on the type of dementia they have. This is because each type of dementia can damage the visual system in a different way.

Difficulties may include:

- decreased sensitivity to differences in contrast (including colour contrast such as black and white, and contrast between objects and background)
- reduced ability to detect movement
- changes to the visual field (how much you can see around the edge of your vision, while looking straight ahead)
- reduced ability to detect different colours (for example, a person may have problems telling the difference between blue and purple)
- changes to the reaction of the pupil to light
- problems directing or changing gaze
- problems with the recognition of objects, faces and colours
- loss of ability to name what has been seen
- double vision
- problems with depth perception.

Dementia can also result in difficulties with orientation. This in turn can lead to:

- bumping into things
- swerving to avoid door frames
- difficulties reaching for things within the visual environment (such as a cup of tea or door handle)
- getting lost or disorientated, even in familiar environments.

Some noticeable consequences of the above changes include:

- difficulties reading and writing, doing puzzles or playing board games
- problems locating people or objects, even though they may be in front of the person - this may be because of other distracting visual information (such as patterned wallpaper) or because of a lack of colour contrast (for example, not seeing mashed potato on a white plate)
- misinterpreting reflections - this may manifest as seeing an 'intruder' or refusal to go into a bathroom because reflections make it appear occupied
- mistaking images on the TV for real people
- difficulty in positioning oneself accurately to sit down in a chair or on the toilet - sometimes this difficulty is mistaken for incontinence
- appearing confused or restless owing to an environment that is visually over-stimulating and difficult to navigate.

Visuoperceptual difficulties can also lead to problems moving around. These problems can make a person fearful of falling and lead to them slowing down their movements while they try to walk safely. If carers understand this, they can try to anticipate these situations, help explain what is being encountered, offer their arm for support, offer encouragement and slow down their own movements. Specific difficulties that people with dementia may have when moving around include:

- misjudging distances and where objects are, even in familiar environments
- stepping very highly over carpet rods or shadows because the change in colour looks like a change in level
- difficulties going down stairs due to problems judging how many steps there are and where the next one is
- avoiding shiny flooring because it appears wet or slippery.

As seen from the examples above, visual difficulties can affect many aspects of a person's daily functioning. If people with dementia are living in their own home with carers who are helping them, the real extent of their visual difficulties may not be apparent until they experience a change in environment, such as going out shopping, on an outing, or on holiday.

How to support someone with visuoperceptual difficulties

This section looks at ways to reduce visuoperceptual difficulties and to support a person experiencing these problems.

CAREFUL ATTENTION TO EYE CARE AND VISUAL HEALTH

- Arrange for regular eye checks, and inform the optometrist of the dementia so that this can be taken into consideration when arranging treatment and appointments.
- If the person wears glasses, check that they are clean and that the prescription is correct, and encourage the person to wear them.
- Check the person is wearing the correct glasses for the correct distance, eg reading or television.

- Research has shown that multifocal glasses can increase the risk of falls in people when they are outside the home. It may be useful to have separate distance and reading glasses. Although you will need to check that the correct glasses are being worn and have them clearly labelled.
- If cataracts are the cause of, or are contributing to, poor sight, talk to an optometrist about how to have them treated.

ENVIRONMENTAL ADAPTATIONS

An occupational therapist can visit the home to assess whether any equipment or adaptations are needed. This is called an occupational therapy home assessment. The occupational therapist can arrange minor adaptations, such as handrails, adapted cutlery and special chairs, through social services.

Tips:

- Deliberate use of colours can help significantly. For example, a red plate on a white tablecloth is more easily visible than a white plate, and toilet seats are easier to see if they contrast with the colour of the toilet bowl and walls. Colour can also be used to highlight important objects and orientation points (eg the toilet door) and to camouflage objects that you do not want to emphasise (eg light switches or doors that the person doesn't need to use).
- Improve lighting levels around the home. This can reduce visual difficulties and help to prevent falls. Lighting should be even around the home and should minimise shadows - some people resist going near dark areas in corridors and rooms.
- Minimise busy patterns on walls and flooring and try to reduce any changes in floor patterns or surfaces - the person may see such changes as an obstacle or barrier.
- Remove or replace mirrors and shiny surfaces if they cause problems.
- Close curtains or blinds at night.

PRACTICAL TIPS

If a person fails to recognise an object or person, try not to draw any unnecessary attention to the mistake and avoid asking questions that might make them feel 'put on the spot'.

If appropriate, give the object to the person and explain how it is used. If they do not accept this explanation, try not to argue with them. Ignore the mistake and listen to what they are trying to say. Being corrected can undermine a person's confidence and they may become reluctant to join in conversation or activities. For this reason, it is important to focus on the emotions behind what is being said, rather than the facts or details.

If the person struggles to recognise people, ask friends and relatives to introduce themselves to the person. If the person doesn't recognise somebody it can be distressing for them and can also be upsetting for those around them. If this happens, try to reassure the person and find tactful ways to give them reminders or explanations.

Try to make activities accessible for the person. For example, if the person enjoyed reading but is no longer able to do so, consider reading to the person or using audiobooks. Likewise, if the person is unable to read the newspaper or watch TV, radio programmes can help people keep up with current affairs. Cooking can be an enjoyable activity if it is made easy - for example using pre-chopped vegetables and ready-made sauces.

Hallucinations in people with dementia

WHAT ARE HALLUCINATIONS?

A hallucination is an experience of something that is not really there. Hallucinations can occur for all the senses, though visual hallucinations (seeing things that are not really there) are the most common type of hallucination experienced by people with dementia.

Visual hallucinations can be as simple as seeing flashing lights, or as complex as seeing animals, people or bizarre situations. Less often in people with dementia, hallucinations can involve hearing (voices, for example), smelling, tasting or feeling things that are not really there.

HALLUCINATIONS AND DEMENTIA

People with dementia are often thought to be hallucinating when in fact they are making a mistake about what they have seen (see 'Visuoperceptual mistakes' above). There are some specific forms of dementia, however, where hallucinations are more common. These include dementia with Lewy bodies and Parkinson's disease dementia. Hallucinations can also occur in Alzheimer's disease.

Hallucinations in people with dementia with Lewy bodies usually take the form of brightly coloured people or animals. They often last for several minutes and can occur on a daily basis. Around one in 10 people with dementia with Lewy bodies also experience smells that are not really there (known as olfactory hallucinations). People with dementia may also experience auditory hallucinations (hearing sounds or voices) and tactile hallucinations (sensing things that aren't there).

SUPPORTING THE PERSON

If you suspect that a person is hallucinating, try to explain calmly to them what is happening. If they cannot retain this information, repeat it when they are calmer. However, if this is still not possible, there is little point in arguing. Attempting to convince someone that they are mistaken can lead to more distress, for both parties.

Try to stay with the person and offer reassurance. Tell them that what they are sensing is not evident to you, but you want to know what they are experiencing. Listen carefully to what they describe. Could it be that language difficulties can explain what they are reporting? For example, someone might refer to green cushions as 'cabbages'.

Try distracting the person to see if this stops the hallucination. For visual hallucinations, the environmental adaptations listed above - including improving lighting levels and eliminating shadows - are also important to consider, as are the points listed under 'Careful attention to eye care and visual health'. For auditory hallucinations, check the person's hearing and make sure that their hearing aid is working, if they have one. People are less likely to hear voices that are not there when they are talking to someone real, so company can also help.

TREATMENT

It is important to note that hallucinations can be caused by the side-effects of medication (including some antidepressants and drugs for Parkinson's disease) or certain illnesses (including fever, seizure, stroke, migraine and infection). If a person is experiencing hallucinations you should consult their GP. If the person's hallucinations involve multiple senses, seek medical help immediately, as this can indicate serious illness. It is also a good idea to seek medical attention if the hallucinations frighten the person, last a long time or occur often.

When visiting the GP, it will help if you bring notes about:

- what the person saw or sensed
- what time of day it occurred and after what event (eg nap, meal, exercise)
- where it happened and how long it lasted
- how the person responded (eg, if they were distressed) and the words they used to describe what they experienced
- medication the person is taking and the dosage (including any supplements and over-the-counter medications)
- the person's medical history, including any previous sight (or other sensory) conditions and mental health issues
- the person's use of alcohol or other recreational drugs.

Some people with dementia experiencing hallucinations respond to anti-dementia drugs, particularly people with dementia with Lewy bodies. In some situations, people with dementia may be prescribed antipsychotic medication. Antipsychotic drugs do help some people with dementia, but they can also cause side-effects and should be used with caution and be reviewed regularly. However, there are certain circumstances where antipsychotic medication can be effectively used to treat hallucinations, despite their risks. In some cases they can eliminate or reduce the intensity of psychotic symptoms, such as delusions and hallucinations, and have a calming and sedative effect.

If a person with dementia with Lewy bodies must be prescribed an antipsychotic drug, it should be done so under constant supervision and reviewed regularly. This is because people with dementia with Lewy bodies are at particular risk of severe adverse reactions to antipsychotic medication. If you have questions about the use of antipsychotic drugs speak to a doctor that is familiar with the various forms of Dementia.

Source:

Alzheimer's Society Website: https://www.alzheimers.org.uk/site/scripts/documents_info.php?documentID=1408

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