



Visuoperceptual difficulties in people with dementia

Introduction to the problem

Driving Miss Daisy has been providing Community Companion Services to the elderly, vulnerable and those living with dementia in Canada, New Zealand and UK since 2002. Research has shown that clients living with various forms of dementia have difficulty recognizing familiar people and objects, this can lead to highly stressful situations which can be reduced through the use of high contrast colours.

Background to the problem

As people get older, there are a number of changes in normal vision which are simply due to ageing. These include:

- the need for additional light
- increased sensitivity to glare
- reduced peripheral vision
- reduced sensitivity to contrasts
- reduced speed of adapting to change in light level
- reduced visual acuity
- reduced depth perception

- altered perception of colour i.e. being less able to discriminate between unsaturated (less intense) colours such as pastels

With older age, there is a greater likelihood of additional eyesight conditions, being on medication for other conditions, having a form of dementia, and perhaps some or all of these things. What the eye sees, the brain must interpret, and this can vary given different circumstances, type and progression of dementia, and abilities.

Understanding that an older person with or without dementia will probably perceive their surroundings differently is a good starting point for the design of living environments. Good design can help enormously in making it easier to interpret and navigate in safety, and the use of colour and contrast can be used in different ways to assist in recognizing items in general use.

The specific difficulties a person with Dementia 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.

The Solution

How Driving Miss Daisy use colour and contrast to help people with dementia

There are over 840,000 people in the UK and Republic of Ireland living with dementia today.

Many people with dementia experience difficulties with their sight and perception which may cause them to misinterpret the world around them. Colour, and contrasting colour in particular, can help people with dementia to live better in their homes and local communities.

There are a number of ways Driving Miss Daisy uses colour and contrast to help support elderly clients or those living with dementia and who have difficulties with sight and perception:

- The use of brightly coloured uniforms, worn by all Driving Miss Daisy Companions ensures that even if the person isn't recognized the uniform and brand is.



- Large logos on all vehicles with bright, high contrast colours maximizes the ability for people with Dementia to recognize and remember the vehicle and significantly reduces the stress levels of the client when using transportation.



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. Driving Miss Daisy Companions understand this, meaning 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

- Specially designed seating to enable people with reduced mobility to get into and out of the vehicles with the minimum of effort and stress.
- Training of all companions to be “Dementia Friends” and “Dementia Champions” ensures that all Companions are able to deal with and reassure clients living with Dementia in order to reduce the stress associated with travel.
- The use of specially designed aids to enable anyone with difficulty in moving to enter and exit the vehicle with the minimum of trouble.
- The use of specially designed Wheelchair Accessible Vehicles to maximize the comfort for clients travelling in wheelchairs.

References

- Alzheimer’s Society
- NHS

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