Dental care in patients with dementia

Statement of the problem: Dementia is a concern in the ageing population. Approximately 5% of the population live with dementia. This progressive neurological condition negatively impacts on the person's ability to remember, communicate, understand and reason. The rate of progression of dementia is individual to the person, although comorbidities such as heart disease and diabetes can increase the rate of decline.

Purpose of the study: This literature review aims to enable the dental profession to better understand dementia in order to improve the provision of oral and dental care for this patient group. Patient-centred approaches to aid effective disease prevention and management strategies for patients with dementia are discussed.

Conclusion: Dentists and dental hygienists can support patients living with dementia by establishing an oral care programme as early as possible following diagnosis to ensure continuity of care as dementia progresses. Maintaining oral and dental health improves patients' self-esteem, social integration, nutrition, and overall well-being, as pain and infection can lead to increased confusion in patients with dementia.

Journal of the Irish Dental Association 2020; 66 (6): 296-300.

Introduction

Dementia is a progressive disease of the brain associated with memory difficulties and disorientation. Patients often struggle to understand what is going on around them and experience difficulty in calculation, learning, language and judgement. An individual's motivation, emotional control and social behaviour increasingly deteriorate.[1] The dental profession has a key role in improving standards of care for patients living with dementia. Less than half of people living with dementia obtain a formal diagnosis despite the fact that one in three people over 65 years of age will die with dementia.[2] Epidemiology figures suggest that 5% of the population are living with dementia and this figure may grow as life expectancy increases. Improvements in diagnosis enable people to plan better for their future and learn how they can access the necessary support.[3] The lack of public understanding regarding the symptoms of this condition can result in social stigma, which can cause patients to withdraw. Patients living with dementia must be treated with dignity and receive individualised care.[4]

Supportive dental care programmes are important to preserve a patient's oral health as their dementia worsens. This helps to maintain a person's dignity, self-confidence, social integration and adequate nutrition. As dental pain and infection can increase the confusion experienced by a patient with dementia, its management also improves their overall well-being.[5]

Dr Laura Fee
BA BDS Dip Conscious Sedation MSc Dental Implantology Dip Primary Care Oral Surgery

Corresponding author:
Dr Laura Fee,
lauramichellefee@gmail.com

Principles of dental care

Patients with dementia often have a decreased attention span, which negatively affects their capacity to co-operate. Appointment reminders can be helpful as they can help to decrease anxiety for a patient living with dementia that they will miss their appointment.[3]

Patients with dementia need information to be clear and easy to understand. Reducing background noise and reverberation within the surgery,[6] and giving written information in a larger font, bullet points and simple language can be helpful. Patients who have had regular dental visits prior to their diagnosis of dementia tend to remember expected behaviours in the surgery better as the surroundings are familiar.[1] Step-free access to the dental surgery reduces another potential barrier to care.[3]

The carer's role is critically important in supporting patients with dementia attending their appointments. Details relating to who the carer is and their relationship with the patient with dementia should be recorded. To avoid confidentiality or ethical issues it should be documented if the patient has consented to be contacted directly or through their carer.[4] It is often helpful if a family member has a dental examination before the patient with dementia to allow the patient to acclimatise to the environment and feel prepared for their own check-up.[1] Carers and family members can help to provide dental histories, and in later stages of dementia they can support patients in having choice and control over decisions that impact on them.[2] In cases where mental capacity is lost there may be a lasting power of attorney in place with regard to healthcare issues and financial matters.[3]

Raising concerns about dementia

Dentists may be the first healthcare professionals to notice a change in the patient's behaviour and abilities. Gentle questioning can allow this to be approached sensitively, such as 'Did you have a good journey?' and ' How did you travel here today?' If concerned, the dentist should seek permission to write to the patient's general medical practitioner.[1]

Medical history

Dentists should update the medical history at each visit as the progressive nature of dementia can be erratic.[5] The patient's medical history and symptoms often determine the type and extent of treatment provision.[6] Patients with dementia are often taking antidepressants, antipsychotics and sedatives. Dry mouth is a common side-effect of these medications, which increases the build-up of plaque and materia alba. Dry mouth also increases the risk of dental caries, periodontal disease and difficulties wearing dentures. Denture fixatives and artificial saliva can be helpful for some patients with dementia.[7]

Medications should be checked to assess their risk of causing gingival hyperplasia, and whether they are taken in tablet or syrup form to identify caries risk. Antipsychotic medication can result in involuntary, repetitive tongue and jaw movements, which can hinder patients trying to wear dentures. Sometimes these movements can persist despite patients stopping the medication.[8]

Dentists should inquire about swallowing or dysphagia, particularly in patients at risk of a stroke or with Parkinson's disease. Some patients may benefit from speech and language support or guidance on posture during eating/drinking. If dysphagia is a comorbidity, the risk of inhalation of food or oral micro-organisms, and subsequent risk of aspiration pneumonia, must be considered and discussed with the carers.[9] The medical history must be signed by the patient, carer/relative and the dentist.

Undiagnosed depression is common in patients with dementia living in care homes.[10] Patients with dementia usually have communication difficulties, especially in the later stages of their journey and this can create a barrier for healthcare professionals diagnosing depression.[11] Depression increases the likelihood of physical and verbal aggression among patients with dementia.[12]

Dental history

Previous issues during dental treatment should be noted. An assessment of past dental or periodontal disease experience may be predictive of future disease risk.[1] Poor communication can make diagnosis of pain more difficult. Assessment tools such as the Abbey Pain Scale[9] can be helpful (**Table 1**).

Pain history

Pain in patients with dementia can be easily overlooked or misdiagnosed. Carers or family members may feel that a patient is not experiencing increased pain because they continue to eat on their supposedly sore tooth, but it may be because they have forgotten that eating increases their pain. These attitudes can lead to pain being wrongly assessed.[13] Studies have demonstrated that 50% of patients with dementia will regularly experience pain and the more advanced the person's dementia, the more severe the pain.[14] Vigilance for non-verbal signs of pain is important in supporting patients with dementia. Carers who are emotionally attached to the person with dementia often instinctively notice behavioural changes that are indicative of pain.[7] If a person with dementia is shouting, speaking incoherently or their movement is restricted the

Table 1: The Abbey Pain Scale.[7]

Name of resident

For measurement of pain in people with dementia who cannot verbalise.
How to use scale: while observing the resident, score questions 1 to 6.

Name/designation of person completing the scale:

Date Time

Latest pain relief was at hours

Q1	**Vocalisation** e.g., whimpering, groaning, crying Absent: 0 Mild: 1 Moderate: 2 Severe: 3	
Q2	**Facial expression** e.g., looking tense, frowning, grimacing, looking frightened Absent: 0 Mild: 1 Moderate: 2 Severe: 3	
Q3	**Change in body language** e.g., fidgeting, rocking, guarding part of body, withdrawn Absent: 0 Mild: 1 Moderate: 2 Severe: 3	
Q4	**Behavioural change** e.g., increased confusion, refusing to eat, alteration in usual patterns Absent: 0 Mild: 1 Moderate: 2 Severe: 3	
Q5	**Physiological change** e.g., temperature, pulse or blood pressure outside normal limits, perspiring Absent: 0 Mild: 1 Moderate: 2 Severe: 3	
Q6	**Physical change** e.g., skin tears, pressure areas, arthritis, contractures, previous injuries Absent: 0 Mild: 1 Moderate: 2 Severe: 3	

Add scores for 1-6 and record here: **TOTAL PAIN SCORE**

Now tick box that matches the total pain score

0-2 No Pain	3-7 Mild	8-13 Moderate	14+ Severe

Finally, tick the box that matches the type of pain

Chronic	Acute	Acute on chronic

Table 2: Dementia Rating Scale:

Score only as decline from previous usual level due to cognitive loss, not impairment due to other factors.

Impairment	None	Questionable	Mild	Moderate	Severe
Clinical Dementia Rating	0	0.5	1	2	3
Memory	No memory loss or slight inconsistent forgetfulness	Consistent slight forgetfulness, partial recollection of events, 'benign' forgetfulness	Moderate memory loss, more marked for recent events, defect interferes with everyday activities	Severe memory loss, only highly learned material retained, new material rapidly lost	Severe memory loss, only fragments remain
Orientation	Fully oriented	Fully oriented except for slight difficulty with time, relationships	Moderate difficulty with time, relationships, oriented for place at examination, may have geographic disorientation	Severe difficulty with time, relationships, usually disoriented to time and place	Oriented in person only
Judgement and problem solving	Solves everyday problems and handles business and financial affairs well, judgement good in relation to past performance	Slight impairment in solving problems, similarities and differences	Moderate difficulty in handling problems, similarities and differences, social judgement usually maintained	Severely impaired in handling problems, similarities and differences, social judgement usually impaired	Unable to make judgements or solve problems
Community affairs	Independent function at usual level in job, shopping, volunteer and social groups	Slight impairment in these activities	Unable to function independently at these activities, although may still be engaged in some. Appears normal	No pretence of independent function outside home. Can be taken to functions outside family home	No pretence of independent function outside home. Appears too ill to be taken to functions outside of home
Home and hobbies	Life at home, hobbies and intellectual interests well maintained	Life at home, hobbies and intellectual interests slightly impaired	Mild but definite impairment of function at home, more difficult chores abandoned, some hobbies abandoned	Only simple chores preserved, very restricted interests, poorly maintained	No significant function in home
Personal care	Fully capable of self-care	Fully capable of self-care	Needs prompting	Requires assistance in dressing, hygiene, keeping of personal effects	Requires much help with personal care. Frequent incontinence

person may be in pain. Body movements are often the most usual expression of pain in patients with late-stage dementia. Other signs of pain include increased agitation, fidgeting, tense muscles, withdrawn behaviour, alterations in sleep patterns, falls, sweating, and an increase in blood pressure.[15]

Treatment planning

Treatment planning must consider the stage of dementia in terms of the level of cognitive impairment. A long-term dental care plan is important once a patient has been diagnosed with dementia. This can be divided into immediate care proposals and longer-term management for the individual. The elimination of pain, controlling dental infection and disease prevention are key. Dentists can improve oral health by understanding the oral health risk and introducing preventive strategies and patient-specific advice regarding diet and the use of fluoride.

Patients with early dementia are often receptive to treatment and can be actively involved in decision-making. The dental care plan must take account of the fact that the progression of dementia may result in a patient being less able to tolerate treatment, express their wishes, or understand the signs or symptoms of dental disease. The dentist is part of a multidisciplinary team that supports a person living with dementia to avoid late-stage dementia crisis management.[16]

Patients with dementia may become unable to take part in decision-making with regard to their treatment and their capacity to consent may be affected. Based on the individual risk of dental disease, the dentist should determine the recommended interval between check-ups for a patient with dementia. If treatment is necessary the dentist must discuss treatment options with the patient and their family or carers, and ascertain if a patient can give informed consent. Consideration must be given to the patient's level of independence, co-operation, cognitive abilities and physical impairment. A Clinical Dementia Rating may be possible.[17] This is a five-point scale as shown in **Table 2**, which is used to rate the cognitive and functional performance of a person to permit healthcare professionals to understand the level of disease progression.[18]

Patients with dementia should perform their own oral hygiene measures for as long as they can competently do so. An individual with dementia may become unco-operative with regard to performing their daily oral hygiene routines as they may no longer understand the reason for tooth brushing.[19] It is important

The Assisted Decision-Making (Capacity) Act

The Assisted Decision-Making (Capacity) Act 2015[22] establishes a modern statutory framework to support decision-making by adults who have difficulty in making decisions without help. The Act proposes to change the law from the current all or nothing status approach to a flexible functional definition as the Act recognises that capacity can fluctuate in certain cases.[1]

Decision-making support options

Assisted decision-making: a person may appoint a decision-making assistant – typically a family member or carer – through a formal decision-making assistance agreement to support him or her to access information or to understand, make and express decisions.

Co-decision-making: a person can appoint a trusted family member or friend as a co-decision-maker to make decisions jointly with him or her under a co-decision-making agreement.

Decision-making representative: for the small minority of people who are not able to make decisions even with help, the Act provides for the Circuit Court to appoint a decision-making representative.

Enduring powers of attorney: under the Powers of Attorney Act 1996, a person can create an enduring power of attorney appointing an attorney to make decisions on his or her behalf in relation to property and finance, personal welfare, or a combination of both.

Advance healthcare directives: the Act makes provision for advance healthcare directives. The purpose of the advance healthcare directive is to enable a person to be treated according to their will and preferences, and to provide healthcare professionals with important information about the person in relation to their treatment choices. A person may, in an advance healthcare directive, appoint a designated healthcare representative to take healthcare decision on his or her behalf when he or she no longer has the capacity to make those decisions. Designated healthcare representatives will be supervised by the Director of the Decision Support Service.

to ask about a patient's oral hygiene routine and evaluate whether assistance is required.[16] As time progresses the patient may need to be supervised or helped by carers. The carer may also need to prompt the patient and remind them how to brush by showing them. Carers or family members can advise on the patient's capacity to brush their own teeth or whether an electric toothbrush or a modified toothbrush with an adapted handle may be beneficial. A person with dementia often finds an electric toothbrush or a toothbrush with an adapted handle easier to use.[1] Visual reminders on the bathroom mirror are useful to remind some patients to brush their teeth. Brushing at the same time as a family member can be helpful.[3]

The UK National Institute for Health and Care Excellence (NICE) guidelines recommend advising the patient and their carer on methods to prevent tooth decay and periodontal disease.[19] Walls (2014) suggested that a thorough cleaning should be performed every 48 hours to prevent disease. With regard to social cleanliness, a targeted approach may be useful where at each session one quadrant is cleaned to ensure plaque removal.[8] A straight-backed chair with the carer positioned behind the patient is often best. The carer may support the patient against their body using one arm to help cradle the person's head for support. A dry toothbrush with a pea-sized amount of high-concentration fluoride toothpaste (5,000ppm) is beneficial.[7]

Domiciliary care

NICE has also developed oral healthcare guidance for care homes, recommending an oral healthcare assessment on admission and for all residents to have a named local dentist. The care home manager has a duty of care to provide information about their provision of oral healthcare.[20] With the progression of dementia, attending dental visits outside the person's familiar environment can be disruptive. Carson and Edwards (2014) reported that the most significant barriers to the provision of oral care to older patients in care homes was lack of equipment and training.[21] Patients can also be directed to HSE special care dentistry facilities where the more dependent patients can access domiciliary oral healthcare.

For patients in the late stages of dementia, referral for special care dental treatment may be necessary. Special care dentists are trained in the application of behavioural adjuncts to encourage patients to better tolerate dental treatment. Consideration may be given to the use of oral and intranasal sedation, with intravenous sedation and general anaesthesia if co-operation is challenging.[18]

Denture wearing

The inability to wear dentures can negatively impact a person's appearance, diet and speech. Denture loss is frequent within residential or respite care settings. Carry-cases are useful to prevent denture fractures and allow patients to store dentures safely at night. The patient's name should be permanently marked on their dentures during their fabrication.[7] Alternatively, the patient's name can be written on their denture using commercially available dental marking kits, which consist of a non-toxic pen and clear sealant. Providing a copy denture can be considered.[15]

Conclusion

Dementia is the most common neurological disorder in patients over 65 years old. Dentists and dental hygienists can dramatically improve the quality of life for patients living with dementia. Poor oral health can negatively impact a patient's eating habits, socialising, and their general well-being. Dental pain can affect the patient's well-being and the symptoms of dementia. A person with dementia who is experiencing dental pain may display intimidating, aggressive, antisocial or simply unusual behaviour as a manifestation of their personal distress. Patients with dementia often cannot adequately communicate their feelings.

Dental teams can ensure the highest quality of care for patients with dementia through shared decision-making, engaging the patient and working within the patient's values. The profession has an ethical responsibility to safeguard compassionate care for patients with dementia by striving to optimise their oral health and function, which can help to prevent distress.

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CPD questions

To claim CPD points, go to the MEMBERS' SECTION of www.dentist.ie and answer the following questions:

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CPD

1. What concentration of daily fluoride toothpaste is recommended for patients with dementia?

- ○ A: 2,500ppm fluoride
- ○ B: 1,350ppm fluoride
- ○ C: 5,000ppm fluoride
- ○ D: 1,250ppm fluoride

2. What score on the Clinical Dementia Rating Scale is a person who has moderate difficulty in problem-solving, moderate memory loss but maintains social judgement and appears normal upon casual inspection?

- ○ A: 0
- ○ B: 0.5
- ○ C: 1
- ○ D: All of the above

3. For patients living with dementia who cannot verbalise the level of their discomfort, what does a score of 8 indicate on the 'Abbey Pain Scale'?

- ○ A: no pain
- ○ B: moderate pain
- ○ C: severe pain
- ○ D: behavioural change