The impact of oral health on nutritional status


Abstract
In this article, the author argues that the assessment of oral health in older people is important as it can indicate signs and symptoms of oral and systemic disease.

The assessment of oral status and related patient care is a largely neglected area of nursing practice (White 2000), particularly in older institutionalised patients (Sweeney et al 1995). Oral health is important, whether in hospital or the community, as it can reveal signs and symptoms of oral disease, manifestations of systemic disease, drug side effects, or trauma (White 2000).

Current knowledge of the importance of diet and nutrition in maintaining health and preventing disease is integral to the care of older people (Rosenberg 1999). Research has identified that immune function declines with age and that a well-balanced diet has a significant effect on the immune response of ageing individuals (Lesourd et al 1999). Optimal nutrition is also vital for wound healing (Himes 1999) and the prevention of pressure sores (Pinchcfsky-Devlin et al 1986).

As the population ages, there is a new focus on holism and the retention of natural teeth throughout life (Kamenir 1999). The health of the oral cavity and its ability to function is commonly impaired in older adults (Beck 1984). Throughout a person’s lifespan, physiological changes affect the condition and appearance of structures in the oral cavity (Potter and Perry 1997). In adults aged over 65 years, the structure of the teeth becomes brittle, drier and darker in colour. The teeth also become uneven, jagged and fractured after years of crushing and grinding food (de Liefde et al 1984).

In a 1998 study, it was found that the average 75-year-old had only 15 natural teeth (Steele et al 1998). Walls (2001) proposes that the most important reason for tooth loss is dental caries and that there is more untreated decay in older adults, particularly in men, than in younger people.

Scientific evidence suggests that there is a progressive alteration in food choice with decreasing numbers of teeth. The greatest effects are among those who are edentulous (Walls et al 2000). Older people with few natural teeth are less likely to select foods such as raw carrots, apples, toast, nuts and oranges (BNF 2001).

Denture wearers also tend to reduce their consumption of raw vegetables and salads (Krall et al 1998). With age, the gums loose their vascularity, which leads to decreased tissue elasticity. These physiological changes cause dentures to fit poorly (de Liefde et al 1984), resulting in pathological lesions of the oral mucosa. People with impaired dentition have dietary restrictions that can compromise nutritional status and place them at health risk (Chauncey et al 1984).

The muscle mass in the oral cavity decreases with age and this directly reduces the ability to chew food (de Liefde et al 1984). This influences the person’s choice of foods, for example, consumption of meat is often restricted. This is a cause for concern, as up to 25 per cent of iron might be absorbed from meat (Sharp 2002). A lack of iron can lead to iron deficiency anaemia. This is common among the older population, especially those in residential care, where 52 per cent of men and 39 per cent of women have low haemoglobin levels (Finch et al 1998).

Walls et al (2000) suggest that, as a consequence of having fewer teeth, there is a reduced intake of non-starch polysaccharides (NSPs), which is a cause for concern as diets rich in NSPs are associated with a lower prevalence of many chronic diseases (Moynihan et al 1994).

Joshipeura et al (1996) propose that individuals with reduced dentate consume less dietary fibre, beta carotene (a powerful antioxidant) and fruit, but increase their intake of saturated fat and cholesterol. Research has shown that soluble NSPs lower plasma cholesterol and that there is an inverse relationship between the intake of dietary fibre and the incidence of cardiovascular disease (DoH 1995).

Risk prevention Gariballa et al 2000 recommend consumption of at least five portions of fruit and vegetables per day to prevent ischaemic stroke in the older age group. High fruit and vegetable consumption also protects against the risk of oesophageal, gastric and colorectal cancer (Walls et al 2000).

Older people who are edentulous lack many other key macro- and micro-nutrients in their diet, including protein, intrinsic and extrinsic milk sugars, iron,

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- Nutrition and diet
- Oral health

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Conclusion
Oral health is of great importance in the older age group. Positive messages about good oral hygiene and good dietary practice should be promoted from childhood to ensure as many teeth as possible are retained in old age. The British Nutrition Foundation (2001) recommend dental health policies should be put into place in all hospital and community institutions that care for older people. Nurses are key in patient admission and assessment processes and also have opportunities to collect oral health information. Regular mouthcare allows for efficient care planning and appropriate risk management, which should lead to improved oral hygiene and an improvement in nutritional status (Kamenir 1999). Nurses should advise patients to brush their teeth at least twice a day using fluoride toothpaste and encourage them to restrict the amount of sugar in their diet.

Older people have reduced salivary secretions and some conditions, such as diabetes, can exacerbate this problem (Phipps et al 1995). Regular mouthcare is of paramount importance in these individuals and those who are nil by mouth. Oral dryness leads to loss of appetite and poor nutritional status in older people, further exacerbating malnutrition (Dormenval et al 1998).

It has been suggested that by the year 2030, one third of the UK population will be aged 60 years and over. It is important to ensure that these individuals have an adequate supply of nourishing food, especially when they are ill and vulnerable (Buttriss et al 2001).