Public Health England

Protecting and improving the nation's health

Health Inequalities: Oral health

Introduction

Oral health is multi-faceted and includes the ability to speak, smile, smell, taste, touch, chew, swallow and convey a range of emotions through facial expressions with confidence and without pain, discomfort and disease of the craniofacial complex[1].

Prevalence and risk factors

Research in the UK and internationally consistently suggests that compared to the general population, people with learning disabilities have:

- higher levels of gum (periodontal) disease
- greater gingival inflammation
- higher numbers of missing teeth
- increased rates of edentulism (toothlessness)
- higher plaque levels
- greater unmet oral health needs
- higher levels of untreated tooth decay
- poorer access to dental services and less preventative dentistry[2] [3] [4]

For example, approximately one in 3 adults with learning disabilities have unhealthy teeth and gums[5] [6] [7] [8]. A recent UK survey involving 387 adults with learning disabilities reported that participants with learning disabilities had higher rates of untreated decay, a greater number of extractions and were less likely to have posterior functional contacts than adults in the general population[9]. A large-scale US study based on the electronic dental records of 4,732 adults with learning disabilities reported a prevalence of untreated caries of 32%, periodontitis of 80% and edentulism of 11%[10]. A study of athletes participating in UK Special Olympics found that 5% of participants required urgent treatment for dental or soft tissue problems and 40% required non-urgent treatment[11]. People with learning disabilities have a high prevalence of edentulism (complete tooth loss) as they age compared to the general population[12].

People with learning disabilities may be at an increased risk of some of the general factors that lead to poor oral health such as frequent sugar intake and social deprivation[2]. They may also experience additional risk factors including: prescription of medications that can reduce saliva flow or increase gingival inflammation; gastroesophageal reflux; difficulty in accessing dental services; being non-oral feeders; reduced dexterity resulting in ineffective tooth brushing; sensory sensitivity, making it difficult to co-operate with oral care; and difficulty in understanding the importance of daily oral care[2]. Poor oral health can also be related to behavioural issues (for example refusal to cooperate with teeth brushing, fear and distress)[13].

For people with learning disabilities, living in the community without support is a risk factor for poor oral health[14]. Changes from institutional living to community-based housing for adults with learning disability may be associated with changes in dental attendance and treatment patterns, with less regular attendance at the dentist in the community and less receipt of operative treatment[15]. A study conducted in one English city found that adults with learning disabilities living in the community had greater unmet oral health needs than those living in residential care and were less likely to have regular contact with dental services[16]. Two subgroups who are at especially high risk for oral health problems are people with Down syndrome and people unable to cooperate for routine dental care[3].

Impact on people with learning disabilities

Support for good oral and dental care is an essential part of promoting good health and quality of life for people with learning disabilities[2]. For people generally, poor oral health impacts not just on the individual's health but also on their wellbeing and that of their family. People who have toothache or who need treatment may have pain, infections and difficulties with eating, sleeping, communicating and socialising. Poor oral health can lead to pain and discomfort, and some people with learning disabilities may have difficulty communicating this[2].

Poor oral health also has an impact on general health, being significantly associated with major chronic diseases such as cardiovascular disease, diabetes, respiratory disease and stroke[4]. Poor oral health can also affect an individual's psychological health, ability to socialise, feelings of social wellbeing, growth, appearance, speech, eating and enjoyment of life[4]. Toothlessness is likely to result in poor chewing ability and restricted food choices, which can increase the risk of nutritional deficiencies and obesity[2].

Healthcare and treatment

Tooth decay and gum disease, which are the 2 major oral health diseases, can be almost entirely prevented by reducing the amount and frequency of sugar consumed

in food and drink, adequate exposure to fluoride, regular and effective tooth brushing. People with learning disabilities are often dependent on others to choose which foods they eat, when they eat and how much they eat[17]. Carer support may also be required for maintaining oral hygiene. However, carers may see people with learning disabilities not brushing their teeth as a choice[13], illustrating a tension between self-determination and engaging in behaviour which can be harmful or neglectful of health.

Whilst health checks are offered on an annual basis to people with learning disabilities, health checks do not include dental checks[18]. People with learning disabilities may be unaware of dental problems and may be reliant on their carers/paid supporters for oral care and initiating dental visits[2]. People with learning disabilities are more likely to experience anxiety about visiting the dentist[4]. People with learning disabilities suffering from anxiety around dental treatment are much less likely to seek out routine dental treatment[19]. Those with more severe learning disabilities are likely to require a specialised dentist able to meet the needs of those unable to cooperate with routine dental care[3].

Work from the US suggests that to receive dental treatment nearly one-quarter of people with learning disabilities required the use of advanced behaviour management techniques, and nearly 40% required some form of behavioural assistance[10]. Knowledge of behavioural management principles has been found to be low among dentists in the UK and there is a clear need to provide teaching and learning opportunities in non-pharmacological behaviour management techniques to improve the clinical experience of dentistry for people with learning disabilities[20].

Social determinants

There is a widely accepted disparity between socio-economic groups in relation to oral health[21]. Regular dental attendance is more prevalent in high-socio-economic groups[21]. NHS dentists charge for treatments at a much reduced cost compared to a private dentists and free treatment is available for those who are eligible including those on low income benefits[22]. However, people with learning disabilities may have difficulty accessing an NHS dentist and have difficulty accessing transport to attend for dental screening and treatment[23].

The quality of social care support received by people with learning disabilities is likely to impact on their daily oral care and access to dental services. However, whilst there has been research looking at the impact of educating social care staff to improve the oral health of people with learning disabilities[24] further research is needed into how such education programmes can be translated into improved outcomes[2].

Resources

Public Health England (2019) Oral care and people with learning disabilities Information about oral care and dental treatment for people with learning disabilities, including case studies, examples of reasonable adjustments, and links to online resources

Faculty of Dental Surgery (2012) Clinical Guidelines and Integrated Care Pathways for the Oral Health Care of People with Learning Disabilities Evidence-based guidance on the prevention of oral diseases and the maintenance of good oral health

Promoting a more inclusive society (PAMIS) Oral Health Care for People with Profound and Multiple Learning Disabilities A brief description of some of the oral health problems that people with profound and multiple learning disabilities are more likely to experience and provides guidelines to help maintain a good standard of oral hygiene

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