Patients with serious mental disorders have poorer dental health than the population in general. Some simple measures can help strengthen the provision of dental health services to this group.

The dental health of the Norwegian population has improved significantly over the last 30–40 years, primarily because of fluoride intake, better daily oral hygiene and a generally increased living standard (1, 2). On the other hand, some groups still have a greater need for
dental health services than the population in general. Such groups include children and adults with disabilities, cancer patients and patients with serious mental or addiction disorders (3). The most common challenges to dental health are caries and periodontitis (2).

Large differences

Few studies have been made of dental health in persons with serious mental disorders in Norway, but in 2006, Haugbo and collaborators started a project at Lovisenberg Diakonale Hospital in which 260 patients with combined addiction and mental disorders were examined and treated over a period of three years (4). At the early stages of the treatment process nearly one-half of these patients reported to have a strong fear of dental treatment, and none of them had seen a dentist regularly. There was a high prevalence of caries and tooth loss. Patients in the age group 30–39 years had an average of 7.6 teeth affected by caries. The corresponding figure for healthy persons aged 35–44 years is 0.8 (5). The patients at Lovisenberg had lost 3.4 teeth on average, while the corresponding figure for healthy persons has been found to be 1.2 (4, 5). Similar findings have been made in a number of international studies (6–8). A meta-analysis showed that the risk of tooth loss in patients with serious mental disorders was 2.8 times higher than in the general population, and there was a significantly higher number of people with fillings and missing teeth (9). A study from Denmark showed that no more than 43 % of patients with schizophrenia had seen a dentist during the preceding year, compared to 68 % of the Danish population in general (10).

Dental health is a key element of physical health, and poor dental health is related to an increased incidence of cardiovascular diseases, diabetes, cancer and diseases of the airways (11). In addition, poor dental status may affect the ability to chew and speak and negatively affect self-image, which in turn may impair social functioning. In a qualitative study in Sweden, patients with serious mental disorders reported feelings of shame about their poor dental status, stressful experiences from dental treatment and difficulty in attending to their own dental hygiene (12).

Possible causes

Dental health problems may have a variety of causes, including poor diet, smoking, alcohol and substance use. In addition, a number of psychotropic drugs may have adverse effects related to the oral cavity, of which reduced saliva production is often the most manifest (13). Poor oral hygiene may be an important additional factor; only 75 % of patients with serious mental disorders brush their teeth on a daily basis (6), compared to 90–96 % of the general population (14). Furthermore, dental treatment is costly, and we know that low socioeconomic status is related to poor dental health, nationally as well as globally (14, 15). Poor economy, inability to pay and limited access to dental health services may therefore be important contributory factors (10, 16).

Studies from the United Kingdom show that most patients who had been in contact with mental healthcare institutions had never been asked about their dental health (17). Research on fear of dental treatment describes a vicious circle in which anxiety and fear cause avoidance of dental treatment with subsequent deterioration in dental health, which in turn leads to feelings of guilt, shame and loss of self-esteem (18). Examination of the oral cavity and teeth is included in a general medical examination, but perhaps we have arrived at a situation described in a report from the Directorate of Health (3): ‘Today, the mouth is physically, but not organisationally a part of the body.’ Do healthcare personnel find that inquiring about dental health is too invasive and personal?

What can be done?

Poor dental health is preventable, but requires targeted interventions vis-à-vis high-risk groups. There is much to indicate that low priority is given to dental health when there are
other and more obvious symptoms that require treatment. Moreover, we have little knowledge about the effect of interventions, and more research on individually targeted and system-oriented measures is required (19). A meta-analysis from 2016 on the benefits of motivation and training in oral hygiene for persons with mental disorders provides no definite findings (20). However, in one of the included studies Almomani et al. compared two randomised groups, both of which were provided with training as well as an electric toothbrush and a reminder to follow up their oral hygiene, but where one of the groups also undertook brief sessions with motivational interviews. Both groups had reduced amounts of plaque, but the effect lasted longer in the group that underwent the motivational interview (21).

The guidelines for examination, treatment and follow-up of persons with psychosis-type disorders recommend facilitation of routine visits to a dentist. It is emphasised that 'When drugs with an anticholinergic effect are used, patients should be informed about the importance of good dental hygiene' (22). Examination and treatment of the teeth should also be highlighted as a part of the routine for institutionalised patients, especially with a view to reaching those with the most serious disorders (10). Dentists have recommended the following as a simple screening procedure: Count the teeth and refer the patient to a dentist if he or she has less than 20 teeth, has front teeth missing or suffers from problems with or pain in the mouth. We recommend such a screening procedure, but this formulation is no longer found in the most recent manuals (14, 23). As a part of the package pathways for mental health and addiction, somatic health and lifestyle, some screening questions have been proposed, and we deem these to be appropriate (see Box 1) (24).

### Box 1 Questions for screening of dental health in patients admitted to institutions for mental health care or addiction (24)

1. Do you suffer from pain or other problems in your mouth?
2. When did you last see a dentist/dental hygienist?

- If more than two years ago: What is the reason why you have not seen a dentist/dental hygienist for such a long time?
- If anxiety is the reason why the patient has not seen a dentist/dental hygienist for more than two years, information must be provided in the referral to a dentist/dental hygienist.

Inform the patient about the opportunity for financial support to cover expenses for dental treatment.

### More specific rights are required

Financial support schemes for dental care are currently regulated pursuant to the Dental Health Care Act and the National Insurance Act. Accordingly, patients who are admitted to an institution for more than three months or receive home nursing services on a weekly basis for more than three months are entitled to dental health services free of charge (25). In addition, patients with periodontitis, hyposalivation or strongly reduced ability for self-care may be entitled to financial support for necessary dental treatment (26). Patients may also be entitled to financial support for dental care from the Norwegian Labour and Welfare Administration (NAV) (27). The dentist who provides the treatment is responsible for collecting the necessary documentation. The fact remains, however, that even though support for dental treatment has been granted, the patients might still have to pay a high
patient charge because of the unregulated pricing of dental care services. We may therefore reasonably assume that poor economy represents a further obstacle to good dental health and treatment for patients with serious mental disorders. In addition, interpretation of the regulations may be complicated and require both knowledge and interest on the part of each therapist and dentist.

Poor dental health has a significant impact on patients who are seriously mentally ill, and its effect on self-image and quality of life should not be underestimated. As healthcare service providers we therefore need to ensure that dental health is examined and followed up in line with other aspects of somatic health. In addition, the legislation needs to be amended to specify the rights that have been formulated, and steps must be taken to make it specifically clear that dental treatment is in fact provided free of charge to patients with serious mental disorders.

REFERANSEN:
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