International Journal of Dental Hygiene

Official Journal of the International Federation of Dental Hygienists

PRESIDENT'S ADDRESS

Global oral health inequities

We know that oral health is an essential component of health in general. Good oral health enables a person to speak, eat and socialize without active disease, discomfort or embarrassment. It implies being free of chronic oro-facial pain, oral mucosal lesions and maxillofacial traumas. Oral diseases cause unspeakable pain and suffering, interruption of daily performance and present an economic burden to society (1). The WHO Commission on Social Determinants of Health recognizes inequalities in health as a major problem around the world (2). They point out unfairness in people's capability to function and to make choices, and disparities in exposure to health risks. Inequality in health and oral health demonstrate small signs of decreasing in spite of previous commitments to this process. This article will highlight strategies attempting to close this gap.

A task group was formed to address global oral health inequalities and strategies to address implementation and delivery of these strategies (3). The report of this group discusses the inadequacies of current methods to reduce oral diseases and inequalities, highlights the significance of social determinants and links these to research needs and policies on implementation of strategies to reduce oral health inequalities. The authors state that methods that focus largely on lifestyle and behavioural factors have limited success in reducing health inequalities. According to the authors, this focus does not take into account social determinants, as they believe that changing behaviours requires changing environment. The research agenda suggested in the new model takes into account that a closer relationship between and integration of dental and general health research is needed. The imbalanced allocation of determinants underlies health inequalities, and the CSDH (2008) defines social determinants of health (SDH) as 'the structural determinants and conditions of daily life responsible for a major part of health inequities among and within countries' (2). Health determinants include social and physical environment, individual behaviours, genetics and the health care system (3). Global methods to prevent oral health problems have been criticized. In some industrialized countries, it is said that the oral cavity is the most expensive part of the body to treat (3).

The prevailing method of focusing on disease and dental restoration is not viable in most countries, particularly in low-income countries where more than 90% of dental decay is untreated. Costs for restorations are high and exceed the available resources for essential public health care for children of many low-income countries (4). It has been stated that prevention of non-communicable diseases can be achieved through interventions against the major risk factors and their environmental, economic, social and behavioural determinants in the population. Countries can reverse the advance of these diseases if appropriate action is taken (5). According to the WHO, there are many non-communicable conditions of public health importance. They include osteoporosis, renal diseases, oral diseases, genetic diseases, neurological diseases and diseases causing blindness and deafness (5). The gap between what is known about prevention and not implemented by policymakers is highlighted by the WHO. 'Global health urgently needs to apply the body of evidence-based policies, strategies and approaches of health promotion developed over the past 20 years' (6). In the oral health arena, a call to action has been issued to the International Association for Dental Research (IADR), the International Federations of Dental Educators and Associations (IFDEA) and the World Dental Federation (FDI). This includes regional organizations and national groups, and the call suggests that these factions should develop plans and provide leadership in these areas. As these organizations have been advised that they must be mindful of their responsibilities to civil society and take collective action to ensure knowledge transfer and action, do we see this as being germane to the International Federation of Dental Hygienists (IFDH)?

We have seen remarkable declines in the rates of dental caries and periodontal disease, but are continued inequalities in oral health (7). These declines in oral diseases indicate that distinct improvements are within reach in a short period of time. No other chronic disease has declined so rapidly, and additional resources have been designated to research on new risk factors and at-risk individuals, rather than the centre of attention being disease and sick populations (8). It has been suggested that examining the determinants regarding the decline in the caries process and dental decay and periodontal disease could assist in reducing inequalities in oral health and place the focus on health promotion and prevention (9).

In spite of the progress made in oral health prevention and treatments, there continues to be inequalities. It has been said that the major chronic diseases, caries (dental decay), periodontal disease and cancer have risk factors in common (10). While we have much science on the prevention of dental decay and periodontal diseases, the translation of these conclusions into successful programs for groups and populations has been slow (9).

In addition to social determinants, four oral mucosal infections were identified as Global Oral Health Priorities: (i) HIV and associated viral, bacterial and fungal infections, (ii) tuberculosis, (iii) NOMA and (iv) sexually transmitted diseases. Huge global inequalities exist in all four (11). NOMA (cancrum

oris) is a major public health problem for the African Region and is an acute and ravaging gangrenous infection affecting the face. This disease kills or disfigures its victims for life and poses a real barrier to the achievement of health for all (1). Most often, those affected are children aged from 2 to 6 years. The aetiology of NOMA is multifactorial through an intricate interaction between malnutrition, infectious diseases and compromised immunity. In most cases, NOMA is commonly preceded by measles, malaria, severe diarrhoea and necrotizing ulcerative gingivitis. If the disease is found early, progression can be prevented with the use of mild antibiotics and nutritional rehabilitation (11). If left untreated, as happens most often, the ulcers progress to NOMA at a startling rate. It is considered a disease of poverty. As we know, disadvantaged communities have limited or no access to essential oral health care. While quality oral care may only be accessible in urban areas, it is usually at high costs. According to the group that studied this issue, the oral health community has a good background in research regarding HIV infection and its related microbial infections. However, it is crucial that this research be translated into positive strategies in lower- and middle-income countries. By doing so, it allows oral health professionals to take part in larger health groups of other medical and other professionals, as we endeavour to reduce the noted inequalities in HIV infection and its oral manifestations.

The conclusions of the groups are that NOMA is a preventable disease associated with malnutrition and that the IADR and WHO work together to implement a five-point plan for eradication of this disease: prevention – ensuring training and awareness on early diagnosis and treatment; epidemiology and surveillance – finding out the true incidence and incorporating NOMA surveillance into existing epidemiological surveillance systems; and aetiological research – establishing the causes of NOMA and why it develops in some children but not in others (3).

Trying to lessen global oral health inequalities entails creativity, diligence and a strong commitment to partner with the many organizations concerned about global health (12). The groups could include research institutions, institutions of higher education, private and public organizations, professional associations, health officials, corporations and foundations that promote health. The oral health community must work with these and other groups. It is important to look at oral health requirements in the light of overall or systemic health and pursue evidence of the problems created by oral diseases and conditions. Are the dental hygienists' associations at the table?

In regard to periodontal health and global oral health inequalities, a task group addressed these issues (13). The task group acknowledged that oral health is a neglected area of global health in both national and international politics, as stated by others published previously (14). Common oral diseases such as caries and periodontal diseases are still global problems and are documented as contributing greatly to oral health problems. This is particularly the case in underprivileged subpopulations in both developing and developed countries (15). The task group discusses possible reasons for the inequities, such as risk factors, social determinants, access to oral health services and patient compliance, awareness of and attitude towards oral and periodontal health, dental insurance schemes and income inequality (13). The authors discuss fundamental gaps in knowledge and understanding, such as the inability for experts to identify the type of gingivitis that will lead to destruction of tooth-supporting periodontal tissues and alveolar bone (13). They also state that proficient methods for the early detection of periodontal disease and the evaluation of disease activity, as well as treatment effectiveness, are not yet within our reach. As we are well aware, prevention is the key to health, periodontal health being no exception. We also know effective daily personal plaque biofilm control and professional supportive care are critical to health. Behaviour change is suggested as a means of eliciting patient cooperation (16). Experts have also suggested motivational interviewing as a means towards this end (17).

We are aware that we can control periodontal disease and maintain periodontal health, but a general lack of awareness of the general public and other health professionals often leads to no or delayed treatment. 'Lack of appropriate oral healthcare systems and qualified oral health care professionals, including dental hygienists, exists in resource-poor developing countries' (18).

A lack of effective teamwork with medical and other health care professionals in identifying and controlling the risk factors that are shared by, or common to, both oral and systemic diseases is evident. Oral health care professionals and physicians are therefore strongly encouraged to work together for control of the common risk factors that affect both oral and general health. A good example of this type of collaboration can be seen by the American Academy of Periodontology and the American College of Cardiology (19). The task group recommend twelve critical research areas to address the global periodontal health inequalities through international collaborations. Prevention, cost effectiveness, holistic approaches, outcomes measures, genetic variations, mucosal vaccination, salivary biomarkers and host modulatory therapy are among these areas (13).

In summary, while we have made great progress in the areas of prevention and treatment of oral diseases, there is much work yet to be performed. Dental hygienists and dentists continue to carry out research activities that will inform our decisions and enable us to deliver evidence-based care that is in the best interest of the patient around the world.

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