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Social determinants of oral health inequalities: implications for action

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Abstract – For over 30 years, the WHO has been advocating an integrated approach in chronic disease prevention. The concept of the common risk factor approach (CRFA) highlighted shared risk factors for chronic conditions including oral diseases has provided the basis for closer integration of oral and general health promotion activities. Although considerable progress has been undoubtedly made in combating the isolation and compartmentalization of oral health, this paper will argue that future action on tackling oral health inequalities requires a reorientation of oral health policy away from a fixation on changing oral health behaviours to instead action on the common social determinants of oral health inequalities. The narrow and restricted interpretation of the CRFA is a serious threat to developing effective action to address oral health inequalities. Based upon the WHO conceptual framework on the social determinants of health inequalities, an overview will be presented of a range of actions that could be implemented to tackle the social gradients in oral health outcomes.

Key words: inequalities; oral health promotion; social determinants

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In middle- and high-income countries across the world, oral health inequalities are a major public health challenge (1). Oral diseases disproportionally affect disadvantaged segments of society placing an additional disease burden on these groups. Epidemiological evidence from many diverse countries and different populations has shown that social gradients in oral health outcomes exist (2). At different points in the life course from early life to old age, oral diseases are socially patterned across the entire social hierarchy. Oral diseases are directly related to socioeconomic position in a stepwise graded fashion. This social patterning of oral health outcomes is very similar to the social gradients found in general health (3). Indeed the social gradients in general and oral health outcomes are almost identical (4).

In the last 20 years, much progress has been made to develop more effective oral health promotion strategies. Historically, a major problem has been the isolation of oral health preventive measures from other areas of chronic disease prevention. Recognition of the common risks shared between chronic diseases such as cardiovascular diseases, cancers, obesity and oral diseases has facilitated more collaborative joint working across health disciplines (5). However, the common risk agenda has been too narrowly interpreted in terms of the behavioural shared risks, rather than the broader social causes of chronic diseases. Although health-related behaviours are an important element determining health status, a focus on behaviours alone will not address social gradients in general and oral health in populations (6,7). Behavioural factors alone do not account for patterns of oral health inequalities (8–10). A broader and more holistic approach is needed to tackle oral health inequalities and the social gradient in oral diseases. The aim of this paper is to review the implications of a social determinants approach for

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population oral health improvement strategy development.

Paradigm shifts in aetiological perspectives

Historically, dental education, clinical dental practice, oral and dental research and oral health policy have all been dominated by a biomedical perspective. A key element of this approach was the adoption of a biological focus in terms of understanding disease aetiology. The causes of oral diseases were largely considered to be owing to genetic and microbiological factors. Clinical treatment and prevention was therefore directed at the micro level. Although the biomedical model still dominates many aspects of dental services, during the 1980s and 1990s, increasing recognition was placed on the behavioural factors influencing oral health. This 'lifestyle' approach was a key focus for the development of dental health education interventions based upon psychological models of health behaviour (11). Particular focus was placed upon influencing oral health behaviours such as patterns of dental attendance, oral hygiene practices, sugars consumption, and to a lesser extent tobacco and alcohol use. More recently, public health research has highlighted the broader social influences on health and, in particular, the wider causes of health inequalities, known as the social determinants of health (12). The social determinants agenda highlights the influence on health of the social conditions and environments in which people are born, grow, live, work and age (13). Contemporary public health policy led by the WHO Commission on the Social Determinants of Health now recognizes the overriding influence of the political, economic, social and environmental drivers of health inequalities, the causes of the causes, as the key aetiological agents (13). These structural factors pattern the more proximal influences on health such as health behaviours through intermediary psychosocial pathways. The social determinants agenda equally applies to oral health (10,14,15) and has been influential in determining recent priorities in oral health policy and dental research (7,16). Theoretical and conceptual models outlining the broader influences on oral health have also been developed (17). However, the social determinants agenda has greatest relevance and importance for the future development of oral health improvement strategies to tackle oral health inequalities.

Implications of social determinants agenda for action on oral health inequalities

A social determinants approach may appear rather daunting and inaccessible to many dental professionals working to improve oral health. Recognition of the social determinants of oral health inequalities has, however, profound implications for strategy development at a local, regional, national and indeed international level. It is also essential to acknowledge that future action to tackle the social gradient in oral health maybe very different than previous strategies that have improved overall oral health. Graham has highlighted the importance of distinguishing between the social causes of health and the social determinants of health inequalities (18). In many middle- and high-income countries across the world, rising living standards and reductions in smoking have led to overall improvements in health. In oral health, a similar trend has occurred with the widespread use of fluoridated toothpastes, improvements in oral hygiene and reductions in smoking leading to overall reductions in caries and periodontal diseases. However, these overall improvements in health have not changed the association between social conditions and health inequalities. Indeed, health inequalities have persisted and even widened in recent years. Future action to address oral health inequalities needs to be informed by an understanding of the social causes of health inequalities.

The WHO has published a very useful framework to inform action in tackling the social determinants of health inequalities (19). A modified version of the framework is presented in Fig. 1 to guide action in tackling oral health inequalities. An essential feature of the framework is the need to develop context-specific strategies that address both the structural and intermediary determinants of oral health inequalities. These strategies can operate at varying levels from the individual to the global. For oral health promoters working at a local level, strategies can be developed to focus on individuals and local communities (micro and meso levels, respectively). Dental public health policy makers and dental professional organizations can also operate and influence change at a higher macro level of national and international policy development. Oral health policy makers operating at any level of influence need to adopt an inter-sectoral style of partnership working with a wide and diverse range of

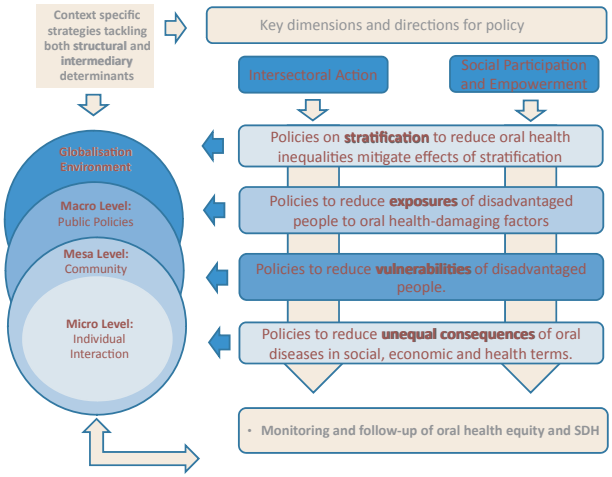

Fig. 1. Framework for tackling social determinants of oral health inequalities.

stakeholders. Imaginative and innovative opportunities for oral health improvement need to be identified within the broader social determinants agenda. Any action on reducing social inequalities in health requires active social participation and community empowerment. Once again, oral health professionals need the skills, experience and insight to enable them to work effectively with communities as local oral health champions and advocates for change. The final key feature of the WHO policy framework is the different types of health inequalities policies that can be implemented. Based upon the Diderichsen et al. (20) typology, four levels of policy action can be developed. The most challenging policy agenda focuses upon mitigating the effects of social stratification, in other words attempts at reducing the social and economic gradients to create a more egalitarian, fairer and just society. This agenda principally involves higher-level action on improving social mobility, access to high-quality education and training, taxation policy, and the reform of welfare and social benefits to protect the most vulnerable in society. The oral health input at this level may be minimal but poor oral health may lead to discrimination and reduced education and employment opportunities, particularly for the most disadvantaged in society such as homeless people (21).

The next level of policy aims to reduce exposures of disadvantaged people to health damaging factors. This provides a wide range of potential opportunities to include oral health on the policy agenda. For example, policy action to create more supportive social conditions and environments for oral health could include policies in preschools, schools and colleges, workplaces, hospitals and other community settings. These policies could improve the availability, accessibility and affordability of oral health–promoting products and services. For example, policy on water fluoridation, safety of play areas and school recreation facilities, and food and nutrition policy to encourage healthier eating are all ways in which a more conducive physical and social environment could be created to promote better oral health amongst disadvantaged populations. All these policies can operate at a local as well as a national level. Probably the most challenging aspect of this level of policy development relates to tackling the activities of the food, alcohol and drinks industries. Regulation and legislation have been very successful in curtailing the excesses of the tobacco industry in terms of their product design, marketing and sales strategies (22). Much still needs to be carried out, however, with the food and alcohol industries to ensure that the population are offered healthier, affordable and acceptable choices and are given understandable and accurate information to enable them to make informed decisions.

The WHO framework also highlights the importance of developing policies to reduce vulnerabilities of disadvantaged populations in suffering from avoidable health problems such as oral diseases. Policies in this area seek to build individual's and community's capabilities and resilience to maintain good health and well-being. Knowledge, health beliefs and attitudes, patterns of behaviour and psychosocial factors are all interlinked and influential in determining individuals' responses to adverse social and environmental conditions that threaten health. Targeted and tailored interventions that aim to develop and build individuals capacity and

ability to promote and protect their health are important elements of an inequalities action plan. Oral health literacy programmes that develop core skills and competencies can facilitate and strengthen individual's ability to cope with adversity. Also, interventions that support and develop self-confidence, strengthen social networks and enhance coping strategies will have beneficial effects on oral health outcomes.

The final policy agenda relates to reducing the unequal consequences of disease in terms of their social, economic and health consequences. This component directly relates to oral health as there is good scientific evidence that oral diseases have a greater impact in terms of pain/discomfort, functional limitations, and social and economic impacts amongst more socially disadvantaged groups compared to their more affluent peers. Action is therefore needed to ensure that accessible, appropriate and effective dental treatment is available to marginalized groups in society whose quality of life is most likely to be adversely affected by oral diseases. This requires action on improving the accessibility, affordability and acceptability of dental care to socially disadvantaged communities. Finally, the WHO policy framework also highlights the need for ongoing monitoring of health inequalities through appropriate health surveillance systems.

Recommendations for oral health improvement strategies

The detailed evidence base on the effectiveness of interventions to reduce health inequalities is surprisingly sparse. This is owing to a wide variety of scientific, methodological and political challenges in implementing and evaluating inequalities interventions. Tackling the social determinants of health inequalities requires complex multifaceted interventions that need sufficient time to demonstrate their effects. However, various policy and systematic reviews have identified characteristics of policies that are most likely to be effective in reducing inequalities in health (13,19,23,24). Table 1 summarizes the key points on effective policies on health inequalities and provides oral health examples to illustrate the issues highlighted. It is important to highlight that the range of policies outlined in Table 1 can be implemented at local, regional and national levels. It is of fundamental importance to acknowledge the potential role dental professionals operating at all these levels of action can play in tackling oral health inequalities. Engaging at a local level is equally as important as action implemented at a national level.

In addition to the evidence on what is likely to have an impact on reducing inequalities, it is also important to recognize the characteristics of interventions that are likely either to have no effect on inequalities or which may have the reverse effect of increasing health differences across the population. Macintyre (2007) (24) has highlighted interventions less effective in reducing inequalities include:

- information-based campaigns (mass media information campaigns);
- written materials (leaflets, posters);
- campaigns reliant on people taking the initiative to opt in;

Table 1. General characteristics of effective policies to reduce health inequalities

Structural changes in the environment, for example, water fluoridation, safe play and recreational facilities, availability of appropriate hygiene and sanitation facilities, availability of affordable healthy foods and drinks
Legislative and regulatory controls, for example, food policies in nurseries and schools, controls on food advertising and marketing, tobacco control policies, violence and bullying policies in schools
Fiscal policies, for example, increase price of sugary snacks and drinks and decrease price of fruit, vegetables, fluoridated toothpastes, toothbrushes and other oral health–promoting products and services
Starting young, for example, focus on supporting families with young children living in disadvantaged communities
Community action, for example, work with and engage with local community, support initiatives such as local food cooperatives, breast and infant feeding peer support initiatives
Improving accessibility of services, for example, addressing barriers to uptake and use of local dental services, linking dental services with other welfare and social services, development of outreach services and engagement with local community as employer
Reorientation of health services, for example, promoting evidence-based preventive support, improve integration with other health and relevant sectors
Prioritizing disadvantaged groups, for example, conduct oral health needs assessment and equity audits to target interventions on marginalized local populations
Offering intensive and tailored support, for example, provide tailored and culturally appropriate clinical and preventive support to groups at greatest risk for oral diseases

Modified sources (22,23).

- health education campaigns designed for the whole population;
- approaches which involve significant price or other barriers;
- housing or regeneration programmes that raise housing costs

Conclusions

Future action to combat oral health inequalities needs to address the broader social determinants of oral diseases. Although some progress has been made to integrate oral health into general health improvement strategies, too much emphasis has been placed upon the proximal behavioural causes of oral inequalities. More attention needs to be placed upon tackling the more distal upstream causes of the social gradients in oral diseases. Opportunities for adopting this more radical agenda exist at local, national and international levels.

Conflicts of interest

The author has no conflicts of interest to declare.

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