

Commentary

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Integrating the common risk factor approach into a social determinants framework

Watt RG, Sheiham A. Integrating the common risk factor approach into a social determinants framework. *Community Dent Oral Epidemiol* 2012; 40: 289–296. © 2012 John Wiley & Sons A/S

Abstract – The common risk factor approach (CRFA) has been highly influential in integrating oral health into general health improvement strategies. However, dental policy makers and oral health promoters have interpreted the CRFA too narrowly. They have focussed too heavily on the common behavioural risks, rather than on the broader shared social determinants of chronic diseases. A behavioural preventive approach alone will have minimal impact in tackling oral health inequalities and indeed may widen inequalities across the population. Based on recent WHO policy recommendations, this study presents the case for updating the CRFA in accordance with the social determinants agenda. The theoretical basis for a social determinants framework for oral health inequalities is presented, and implications for oral health improvement strategies are highlighted. Future action to address oral health inequalities in middle- and high-income countries requires a radical policy reorientation towards tackling the structural and environmental determinants of chronic diseases. In more equal and fairer societies, all sections of the social hierarchy experience better health and social well-being.

Key words: oral health inequalities; social determinants

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Submitted 9 September 2011;
accepted 8 February 2012

The common risk factor approach (CRFA) has been widely accepted and endorsed globally by dental policy makers, dental researchers and oral health promoters (1,2). The concept of the CRFA was originally based on health policy recommendations from the WHO in the 1980s that encouraged an integrated approach to chronic disease prevention (3,4). In 2000, the general concept was further developed and applied to oral health with emphasis being placed on directing action at the shared risk factors for chronic diseases including a range of oral conditions (5). Since then, the CRFA has formed the theoretical basis for the closer integration of oral and general health strategies. Considerable progress has undoubtedly been made in combating the isolation and compartmentalization of oral health. However, recent research and policy developments on reducing health inequalities suggest that interventions should not be limited to

intermediary factors such as health behaviours but must include policies to tackle structural determinants (6). Therefore, it is now time to critically update the CRFA in line with the social determinants agenda. Indeed, the theoretical focus and narrow interpretation of the CRFA may hinder progress in tackling oral health inequalities by placing too much attention on oral health-related behaviours and not enough on their social determinants. A more politicized approach that acknowledges the underlying social determinants, and consequently the causes of oral health inequalities, is urgently needed. This article therefore aims to critically review the CRFA and to present a revised theoretical framework for understanding oral health inequalities to guide future oral health improvement policy. Apart from the moral and ethical reasons for creating a fairer and more just society, a key policy rationale for reducing social

inequalities is the finding that in more equal and egalitarian societies, health across the whole social hierarchy improves and does so far more than is achievable in less equal societies.

Oral health inequalities – the importance of the social gradient

For decades, it has been known that oral diseases are more common among socially disadvantaged groups (7,8). However, in recent years, new insights have been gained into the contemporary patterns of oral health inequalities in high- and middle-income countries. A major and universal finding is that oral diseases are not merely different at the extremes of society, that is, between the rich and the poor. Oral diseases, as is the case with other health outcomes, are socially patterned across the entire social hierarchy, a relationship known as the social gradient (Fig. 1). Indeed, health status is directly related to socioeconomic position across the socioeconomic gradient in populations. The most advantaged have better health status than the less advantaged (9,10). Even in high-income countries where absolute poverty is very rare, there is a fine and graduated pattern of inequality in health across the full socioeconomic social spectrum (11). Those in the higher social ranks are healthier than those immediately below them in a stepwise and consistent fashion. A social gradient in health has been found for a wide and diverse variety of health outcomes ranging from psychological measures to mortality outcomes (12–14). This stepwise gradient in health outcomes also exists across the life course from infancy to older age (9,12). Moreover, socioeconomic differentials in health status exist in all high- and middle-income countries and occur throughout the social class scale, suggesting that there is not a threshold of absolute deprivation below which people are diseased but rather a linear relationship between socioeconomic position and health outcomes (15). Despite major changes in the causes of death over the last 150 years, there is evidence that the gradient in health across social classes has remained remarkably similar over this period of rapid change (16). The universal and relative stability of the social gradient therefore suggests that there is a generalized greater susceptibility to a whole range of diseases as one descends down the social gradient (17).

A social gradient in oral health has also been demonstrated in a wide variety of populations in

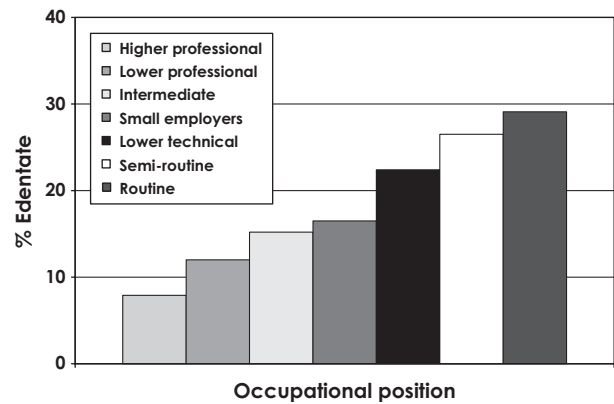


Fig. 1. Social gradient in oral health.

diverse countries, for different outcomes and at different points in the life course (18–23). The existence and universal nature of the social gradient in oral health is fundamentally important in understanding the nature, causes and implications for tackling oral health inequalities. The enduring nature and universality of the social gradient in health and oral health status indicates the influence of broad underlying factors rather than specific disease risks highlighted in the CRFA.

CRFA and 'lifestyle drift'

The original CRFA paper outlined the theoretical and epidemiological basis for an integrated approach for promoting oral health (5). Emphasis was placed upon directing action at shared behavioural risks common to many chronic conditions namely unhealthy diets, tobacco use, alcohol misuse, poor hygiene and lack of physical activity rather than the traditional disease-specific approaches. However, evidence was also presented on the role of shared psychosocial influences such as stress and perceived control in the aetiology of chronic diseases, and most importantly the underlying influence of the wider social environment on oral health inequalities was highlighted (5). The importance of the psychosocial and social environmental influences on oral conditions was further elaborated in a subsequent development of the CRFA (24). Despite presenting the scientific evidence of the influence and interplay between the intrapersonal, behavioural, psychosocial and environmental determinants of oral health, the dental policy and research discourse has become firmly attached to the behavioural agenda and has largely ignored the broader social determinants. There is a

recognized tendency among health policy makers to start off acknowledging the need for action on the upstream social determinants of health inequalities, only to drift downstream to focus largely on individual behavioural factors, a trend known as 'lifestyle drift' (25).

The misinterpretation of the fundamental concepts of the CRFA by dental policy makers threatens the development of effective actions to tackle oral health inequalities and risks isolating oral health from public health initiatives that are increasingly based on a broader social determinants model (6). Whereas the original rationale underlying the CRFA involved integrating oral and general health, integration is now threatened by the distortion of the CRFA and the narrow focus on changing only oral health-related behaviours.

What are the limitations of only adopting a behavioural approach in tackling oral health inequalities? Health behaviours account for only a modest proportion of the variance in differences in health and oral health by socioeconomic position (21,26–30). Patterns of health behaviours alone do not explain health inequalities. Indeed focussing solely on individual 'lifestyle' ignores the web of social influences on health and therefore isolates behaviours from their social context (31,32). Evaluation of individual behaviour change interventions has demonstrated that although short-term changes in behaviour can be achieved, these changes are very rarely maintained and sustained in the longer term in the absence of alterations to the social environments that drive the behavioural patterns in the population (33). Failure to focus on environmental determinants goes some way to explaining why behavioural preventive interventions in dental settings are ineffective in changing long-term oral health behaviours (34–36). Behavioural approaches do not reduce, but increase the health inequality gap by supporting those in society with the resources and the ability to change their behaviours (37). Improvements in health literacy have a negligible effect on the health status of individuals lower down the social gradient in the absence of action to improve their living conditions.

From a social epidemiological perspective, health behaviours are a consequence of the social conditions and environment in which people are born, grow, live, work and age (6). While individuals make choices about how to behave, those choices are situated within historical, political, economic and community contexts. Contexts exert important influences in both the processes of

choice and the types of behavioural options available (38). Health behaviours are 'moulded over time' by the socioeconomic conditions in play at each stage of the life course (38–40). The social patterning of health behaviours in populations is a reflection of the influence of early life and contemporary social conditions. In addition, the consistent clustering patterns of both, health compromising and health promoting behaviours, indicates the influence of broader common social factors on behaviours (41).

The dominance of the behavioural approach to reduce inequalities in health accords with a political ideology that promotes individual choice and personal responsibility as core political values (42). Instead, policies to reduce health inequalities need to tackle the inequitable distribution of power, money and resources in modern society (6). Such a policy agenda directly challenges current political, economic, commercial and professional interests and therefore confronts powerful alliances that seek to maintain the status quo. Public health professionals therefore have a moral and ethical responsibility to resist and challenge the dominant behavioural doctrine in favour of a more radical upstream approach that tackles powerful vested interest groups and seeks to create a more equitable and just civil society (43).

Social environments driving behaviours

Health status and behaviours are determined above all by social conditions (44–46). People's behaviour and health bears the imprints of what positions they occupied and currently occupy in the social hierarchy. Poor early social conditions 'cast long shadows' over health in later adult life (45). Children living in low SES conditions may 'produce a negative behavioural and psychosocial health dividend to be reaped in the future' (38). Adverse social conditions and negative life events become literally biologically embodied. Patterns of behaviours and diseases therefore act as markers of social disadvantage. Health-related behaviours are an expression of the circumstances that condition and constrain people's behaviours. People respond to psychological stress and adverse social circumstances by smoking, excessive alcohol consumption, comfort eating and risk taking (47).

The effects of the social environment on health behaviours are related to how individuals of

different socioeconomic statuses with varying personal propensities, vulnerabilities and capabilities interact with each other and with others, and their social and economic environments. Social position determines opportunities for formal education and qualifications, employment and job security, earnings and pensions, working and living conditions and access and exposure to a number of intermediate factors such as social networks and material environments of home, neighbourhood and workplace (45). The resultant patterns of health promoting or health compromising behaviours are related to personal vulnerabilities and capabilities, and control over resources and access to information. The clustering of behaviours can be viewed as the way in which social groups 'translate their objective situation into patterns of behaviour' (48). Indeed, the propensity for risk behaviours to cluster in certain groups indicates that behaviours are determined by social environments and conditions in which people live (49).

Social conditions are important in shaping individual health behaviours encompassed in the CRFA because resources shape access to health relevant circumstances (50). Resources affect access to the physical and social, such as neighbourhoods, occupations and social networks. 'People benefit from high status not only because it is less stressful to be on top but also because being there leads to benefits that translate into better health. Knowledge about risk and protective factors and the wherewithal to act on it leads to socioeconomic differences in smoking, exercise, diet, seat-belt use, screening and so on' (51). On the other hand, people on the lower rungs of the social gradient ladder have increased exposure to occupational and environmental health hazards, less sense of control, chronic and acute stress in life and work, stress of racism and class prejudice. Such factors lead to greater future discounting, lower self-esteem and poorer social relationships and social support.

Social determinants framework to reduce oral health inequalities

The WHO has led a global public health policy agenda on action to reduce health inequalities. In particular, the WHO Commission on the Social Determinants of Health (CSDH) has been highly influential in policy development to drive forwards an equity-based agenda (6). The CSDH has a useful conceptual framework that identifies the key social

determinants of health inequalities. The CSDH report outlines how the major determinants relate to each other and the mechanisms involved in generating inequalities in population health (6). A life course perspective is of fundamental importance in terms of explaining how health inequalities are created. In particular, experiences in early childhood are critically important for laying the foundations for later adult health (52). Other key components of the CSDH framework include the sociopolitical context, structural determinants and socioeconomic position, and intermediary determinants. It provides a useful conceptual model for oral health inequalities, and an adapted version is presented in Fig. 2.

Graham has highlighted the need to clarify the distinction between the social causes of health and the social determinants of health inequalities (53, 54). In recent decades, in many high-income countries, significant improvements in health determinants such as rising living standards and reductions in smoking rates have led to overall improvements in people's health. The same pattern is seen in oral health with positive trends in fluoride toothpaste use and better oral hygiene practices leading to significant overall reductions in caries and levels of periodontal diseases. However, these improvements have not broken the association between social disadvantage and disability, disease and premature death. Health and oral health inequalities have persisted and even widened in recent years. Future health policy therefore needs to be informed by an understanding of the social causes of health inequalities. In many respects, the CRFA model has been used to inform action on promoting oral health, principally through a behavioural paradigm, but not on tackling oral health inequalities. Therefore, a broader conceptual framework is needed, one that specifically includes the social determinants of oral health inequalities.

Health inequalities are determined by patterns of social stratification arising from the systematic 'unequal distribution of power, prestige and resources among groups in society' (29). The WHO's CSDH conceptual framework is heavily influenced by philosophical and social science theories of power, which seek to explain how power operates in economic, social and political relationships. An improved understanding of power relationships can inform action to tackle health inequalities at both the microlevel of individual households and workplaces, and the macrosphere

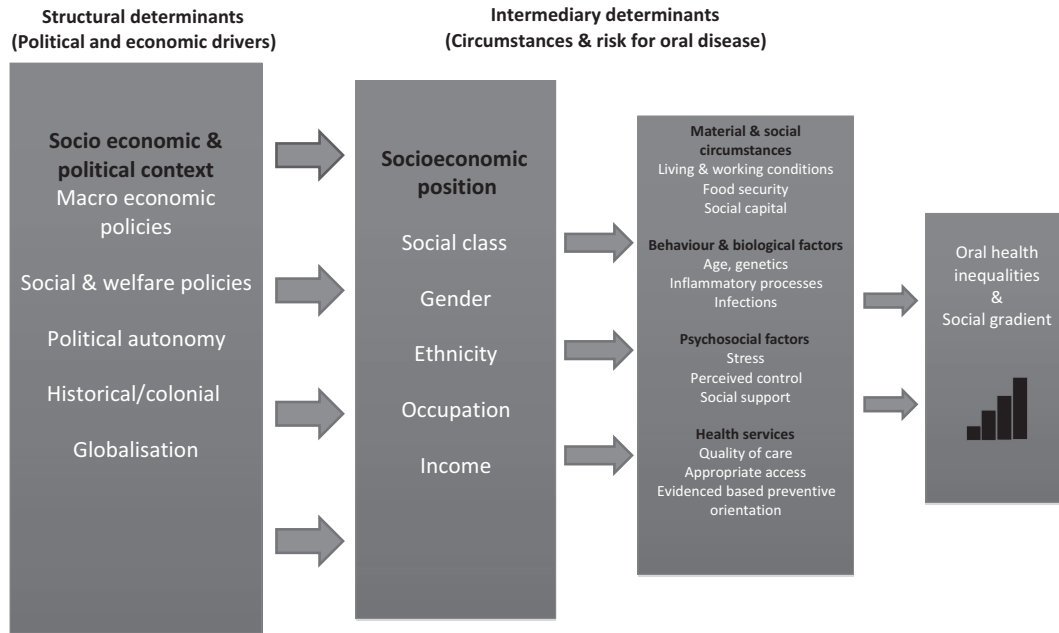


Fig. 2. New conceptual model for oral health inequalities.

of structural relations between economic, social and political institutions. Changing the distribution of power within society to the benefit of disadvantaged groups requires political processes that empower disadvantaged communities and the responsibility of the state (29).

A key element of the CSDH framework is the emphasis placed on the socioeconomic and political contexts, the structural determinants of health inequalities. This broad term includes all the social and political mechanisms that generate, reinforce and maintain social hierarchies including macro-economic policy, educational systems, labour markets, fiscal policy, welfare and health systems. For example, policy decisions on access to education and training opportunities, family friendly labour policies, provision of social safety nets and welfare support are all fundamental drivers of social stratification and therefore ultimately health inequalities (55). Good governance, transparency in decision-making processes, accountability and political autonomy can influence and shape policy development and implementation for societal benefit. Globalization is not a new concept, and global trade in commodities such as sugar has a long and tortured history. The history of the global sugar trade over the last 300 years provides a good example of how political, economic and social factors are interwoven and remain a potent influence on contemporary society (56). These broad contextual factors drive class divisions that define individual socioeconomic position within hierarchies of power,

prestige and access to essential resources, and are therefore the root causes of health inequalities (29).

The WHO uses the term 'structural determinants' to refer to the interplay between the socioeconomic and political context, structural mechanisms and processes generating social hierarchy and the resulting socioeconomic position of individuals. This conceptualization fits with Graham's notion of the 'social processes shaping the distribution of downstream social determinants' (53). Individual's socioeconomic position is a reflection of their social class, occupational status, educational attainment and income level in the social hierarchy. Socioeconomic position therefore is linked to people's degree of power, prestige and access to resources and support. There is an inverse relationship between socioeconomic position and health and mortality rates (6). From a life course perspective, evidence also exists of the effect of early life socioeconomic position on later adult health outcomes (52). A very similar pattern between socioeconomic position and oral health has been demonstrated, including a life course trajectory effect (57). Systematic and institutionalized obstacles in access to power, prestige and resources in many societies result in women and members of ethnic minority groups being educationally, socially and economically disadvantaged. The health effects of such societal discrimination are clearly demonstrated.

The final element of the CSDH framework is termed the intermediary determinants. Socioeconomic position influences health through these

more specific intermediary factors including material and social circumstances such as neighbourhood, working and housing conditions; psychological circumstances and also behavioural and biological factors. The behavioural factors include those in the CRFA. People from lower socioeconomic groups are born, live, work and age in less favourable material circumstances than higher socioeconomic groups and also engage more frequently in health damaging behaviours. The unequal distribution of the intermediary factors is associated with differentials in exposure and vulnerability to health compromising conditions, as well as with different consequences of ill health, constitutes the fundamental mechanism through which socioeconomic position generates health inequalities (29). The model also includes the healthcare system as a social determinant of health through recognition of the role of health services in influencing health inequalities. Benzeval and colleagues have highlighted three ways in which health services can influence inequalities: (i) ensure resources are distributed relative to the needs of different population; (ii) respond appropriately to the healthcare needs of different social groups; and (iii) take a lead in developing more strategic healthy public policies at national and local levels to promote greater health equity (58).

Implications for oral health improvement strategies

It is increasingly acknowledged that solely focusing on changing oral health behaviours is an ineffective strategy for tackling inequalities. More of the same is no longer a policy option. Future oral health policy needs to focus upon the structural determinants of oral health inequalities – the political and economic drivers in society that create social inequalities in society. Action on the structural determinants principally is the responsibility of national policy makers and professional organizations. However, the development of local and regional policies can be directed at the intermediary determinants of oral health inequalities – the local circumstances and risks for oral diseases.

The strategies to tackle social inequity in health and oral health should focus on reducing the angle of the social gradient (59). That means giving priority to universal population strategies on the basis of proportionate universality (60). Based on the principle of proportionate universality, the oral

health team should apply population strategies tackling the upstream causes of the causes of oral health inequalities. For example, actions directed at the unregulated activities of the manufacturers and distributors of processed sugary products. Direct measures aimed at specific health problems may be combined with indirect action at minimizing structural causes of health problems.

Oral health policies focussing on the intermediary determinants can focus on developing supportive oral health environments in a variety of local settings such as schools, colleges, hospitals, workplaces and care organizations. Of particular importance, from a life course perspective, is consideration of how such a policy agenda can be implemented in preschool settings to ensure that a supportive early life environment is created and nurtured (6). Legislative, regulatory and fiscal policies and controls can be implemented to promote and maintain oral health through creating supportive local environments. Interventions to change health behaviours should be directed at changing modifiable aspects of the environment to enable healthy choices to be easier at all stages of the life course. Fundamental to the success of this policy agenda is the need for effective intersectoral working across relevant sectors and community participation and empowerment.

Conclusions

The CRFA has undoubtedly facilitated the greater integration of oral health into general health improvement strategies. However, the narrow behavioural interpretation of the CRFA by dental policy makers is hindering future progress in combating oral health inequalities. A social determinants conceptual model provides a useful theoretical framework of the factors determining oral health inequalities. Such a model can be used to develop future health improvement strategies to reduce oral health inequalities. More equal societies create the conditions conducive for better health.

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