ORAL HEALTH INEQUALITIES IN THE CARIBBEAN

Abstract

Oral health in the Caribbean region has largely been a low priority for regional governments. Public dental services provide most of the care with private practice treatment being difficult to access for the most disadvantaged groups. This has resulted in inequalities in oral health with a growing gap in health status across the social spectrum. This can only be adequately addressed by high quality research and the implementation of oral health promotion policies and strategies tailored to local health priorities. This paper discusses the value of research in addressing oral health inequalities in the Caribbean region.

Key words: Oral health, research, policy, Caribbean

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Health research and health inequalities

Health has been described as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity [1] highlighting that the concept of health is complex to define. Currently, good health is seen as a resource for daily living and impacted upon by many determinants at the individual and societal level. The WHO embarked upon universal health coverage reform which, "ensures that health systems contribute to health equity, social justice and the end of exclusion, primarily by moving towards universal access and social protection". [2] Health research can be used to achieve this goal by informing decision making through providing evidence on the effectiveness of healthcare interventions and health promotion programs.

As health inequalities have not been stated as a research priority in the Caribbean, good quality data regarding social and economic conditions are not extensive. [3] However, with chronic diseases on the rise in the Caribbean, there is some indication that the gap between the low income and high income populations in terms of health status is growing. An inverse relationship between socioeconomic status and levels of morbidity has been reported in people attending for diabetes care [4] and for self-rated health in the elderly.

Oral Health Inequalities

In developed countries inequalities in oral health have been shown to exist between social classes particularly among different ethnic groups and in preschool children. [5] Much of the oral health research in the English-Speaking Caribbean has been on children's dental health. National surveys have found primary school aged children to be most at risk for dental caries (tooth decay) (6) and the group most likely to attend for emergency dental care. [6] Children from families of lower economic status are more frequent users of publicly funded pediatric emergency care suggesting a social gradient in dental health care utilization .[7]

Delay in attendance or non-attendance for dental treatment may be due to greater barriers to accessing dental care in developing countries due to affordability and availability of dental services .[8] Adding to socioeconomic disparities some people face further barriers due to physical and/or mental disability. A high prevalence of unmet need has been reported in people with an intellectual disability. [9-11] This population group often cannot advocate for themselves making them more vulnerable to health problems, for instance 45 % of Special Olympics participants were found to be in need of urgent oral health care.[12]

Though removing barriers to treatment services is important, the development and implementation of oral health promotion can sometimes be dominated by the influence of dental professionals that perpetuate a curative focus of service delivery.[13] Oral health inequalities can only be reduced in the long term by the use of effective

and appropriate oral health promotion policy that addresses underlying causes of oral disease.[5]

Oral health promotion

Evidence-based health promotion based on high quality research ensures the use of the most effective interventions, which increase positive health outcomes by providing the best value for resource investment. Oral health research has shown that oral diseases and disorders can affect general health and that oral complications of many systemic diseases also compromise the quality of life. There is strong evidence for a direct relationship between diabetes and periodontal disease and it is also suggestive of a relation between periodontal disease and diabetes control.[14] There is also some evidence that poor oral hygiene and low grade periodontal inflammation is associated with greater of risk of cardiovascular disease.[15]

Health interventions are often costly as they involve manpower and other resources which are not readily available in the Caribbean. These costs can be reduced by including oral health in the common risk factor approach.[16] Health promotion should therefore involve a multi-sectoral approach when educating patients about reducing environmental and behavioural risk factors common to oral and general health. This approach focuses on improving the overall health for the general population, which includes high risk groups, thus reducing social inequities and the burden of oral disease. An example of this would be the strategy used to deal with smoking, which is the most preventable cause of disease and death worldwide. Its involvement in both oral and systemic diseases has also been well documented, where the oral presentations range from tooth staining to more serious precancerous oral lesions and oral cancer.[17, 18] The health research provided, along with advocates for health, resulted in Trinidad and Tobago formulating and enforcing legislation that banned smoking in public places in February, 2010. Subsequently, primary care medical and non-medical personnel were also trained in smoking cessation techniques which served to follow two of the principles of the Ottawa Charter of 1986, namely by building health through public policy and creating a supportive environment in the public health sector. [19]

One of the best examples of the effective use of health research is the employment of immunization worldwide to reduce the incidence of infectious diseases. In the Caribbean, however, there has been a noticeable shift from infectious disease toward chronic and lifestyle related illness, such as obesity and cardiovascular disease. Preliminary Caribbean data confirms the internationally reported association between the two chronic diseases, periodontal disease and diabetes. [20] The Caribbean Health Research Council (CHRC) has produced evidence-based guidelines on managing diabetes in the Caribbean. In their multidisciplinary team approach, part of the initial physical examination of diabetic patients includes inspection of the mouth for periodontal disease.[21]

Water fluoridation has shown promising results in reducing oral health inequalities across the social classes.[22, 23] However, in the Caribbean where municipal water supplies are less reliable, salt fluoridation has shown promise as an effective alternative.[24] Caries levels in children in Jamaica fell dramatically over a 6 year period following the introduction of fluoridated salt.[25] A recently launched initiative between Colgate and PAHO [26] has included the implementation of community based fluoride varnish programs for young children in the Caribbean, the effectiveness of this intervention having been established through high quality studies. [27]

Oral cancer and oral problems related to HIV and AIDS

Most oral diseases progress slowly with an initial asymptomatic stage with patients presenting for treatment when symptoms occur. For diseases such as oral cancer, ranked the eighth most common cancer worldwide[28] early detection can affect treatment outcomes and survival rates. Screening of high risk groups such as smokers and the elderly should be part of local oral health promotion strategies in the Caribbean[29] and if other healthcare providers are trained to examine the oral cavity, then serious oral diseases could be identified for early referral and diagnosis. Notwithstanding this shift towards increased chronic diseases, there is still a high prevalence of HIV/ AIDS in the Caribbean. The prevalence rates of HIV/ AIDS in the region are second only to sub-Saharan Africa. [30] Dentists can aid in early detection of oral lesions associated with HIV/AIDS, sometimes the first markers of the disease and can also be involved in the multidisciplinary approach needed for care of these patients, which includes appropriate referral for counselling and treatment .[31]

Oral health and quality of life

Oral and general health promotion strategies can help make effective use of limited health care resources through integration of oral disease prevention programs in the public health systems.[28] Furthermore, oral conditions are usually associated with more morbidity than mortality and oral health has often been a neglected area of global health. [28] Therefore, governments must endeavour to equitably distribute resources in relation to 'need' as expressed in the Alma Ata Declaration.[32] However oral health needs are not often well described and documented, in particular the impact of poor oral health on individuals and communities.

The impact of oral disease can be seen worldwide as in the US where there are 4.9 million acute dental conditions a year with 7 million days of work loss [33] and in the UK 8% of adults had severely affected quality of life due to oral conditions. [34] Although there have been significant global reductions in dental caries, it still remains a problem for 60-90% of school children in developed countries.[35] Quality of life can be defined as "the degree to which a person enjoys the important possibilities of life".[36] It is a broad concept that takes into account the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to their environment, as well as pain, self-esteem and self-care.[37] "Quality of life in this context implies the opportunity to make choices and to gain

satisfaction from living. Health is thus envisaged as a resource which gives people the ability to manage and even to change their surroundings.".[38]

Oral health related quality of life (OHRQoL) refers to how the mouth and oral tissues affect how well people live. Oral conditions may lead to discomfort, pain, loss of function such as chewing and speaking, poor aesthetics and low self-esteem, thereby compromising an individual's quality of life.[39]

In the majority of the Caribbean, only clinical data on oral health are available and treatment needs are defined solely from a professional normative viewpoint. As needs assessment should involve the views of the person and how the mouth impacts on their daily life it is important to complement the clinical data with data on oral health related quality of life measures.

Public Health Strategies

Oral health is a human right that is essential to general health and quality of life [40] efforts must therefore be made to protect this right by increasing access to quality research informed oral healthcare. However management of disease can only be truly effective when we move away from treatment to prevention and health promotion. More research is needed on interventions that address general and oral health inequalities thereby improving the quality of life of people in the Caribbean. Building research capacity and strengthening oral health research networks has been identified as an important strategy for developing countries by the WHO [40] and oral health promotion and disease prevention have been identified as strategic health priorities in the Caribbean region [41]Some countries in the Caribbean are in the early stages of designing public health strategies to address inequalities in oral health [42]. Similar to the situation in other developing regions of the world, such strategies should include evidenced-based initiatives as outlined by the WHO [43] including:

- conducting a situation analysis to assess oral disease burden.
- developing and strengthening programmes for oral health promotion and prevention of oral diseases.
- integrating oral health programmes with other relevant health programmes around common risk factors and determinants of health.
- adopting a multisectoral, multidisciplinary and multilevel approach to oral health promotion.
- establishing surveillance systems for oral health.
- ensuring regular evaluation of oral health programmes.
- supporting research in oral health promotion, prevention and control of oral diseases.

CONCLUSION

Oral health promotion policies and strategies addressing the determinants of oral disease in the Caribbean requires a focused research agenda involving stakeholders from academic institutions, the private sector, government and non-government organizations across the region. Inequalities can only be addressed when health

research provides evidence-based strategies appropriate to local population needs, based on the principles of oral health promotion. These strategies must also include greater access to effective primary dental care especially for vulnerable and disadvantaged groups in the population.

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