Review

Exploring the Relationship Between Periodontal Disease Risk, Oral Health Behaviors, and Socio-Economic Status: A Review.

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Abstract:

People throughout the world suffer from. Even though there are many contributing factors to these diseases, it is becoming more and more clear that oral health practices and socioeconomic position have a big impact on how they start and advance. Evidences has demonstrated prevelance of dental caries and periodontal disease in individuals from low socioeconomic strata. Oral health habits and access to care are influenced by the social determinants of health. The delivery of health promotion strategies at the population level has shown a great impact on reducing the prevalence of oral diseases. This paper explores the complex interplay among periodontal disease risk, oral health behaviours, and socioeconomic level.

JK-Practitioner2024;29(2-3):01-03

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Indexed : EMBASE, SCOPUS, IndMED, ESBCO, Google Scholar besides other national and international Databases.

Cite this article as: Sharma AV, Jain M. Exploring the Relationship between Periodontal Disease Risk, Oral Health Behaviors, and Socio-Economic Status: A review**.** JK Pract2024;29(2-3):01-03

Full length article available at **jkpractitioner.com**

Keywords:

Oral health care disparity, Periodontal Disease Risk, Oral Health Behaviors, Socio-Economic Status.

Introduction

According to World Health Organization, oral health and general health are governed by various factors such as lifestyle, dietary habits, socioeconomic conditions, and occupational environment. Oral health means more than healthy teeth. Oral health enables an individual to speak, eat, and socialize without active disease, discomfort, or embarrassment.[1]

Sociodemographic factors are one of the risk factors of periodontal disease and various oral conditions. The disparity of oral hygiene habits among individuals from different socioeconomic backgrounds results in poor oral hygiene status. Families with low incomes show poor oral hygiene maintenance of their child. The income and education of an individual has a relationship with periodontal status. Individuals who have a low income have a higher probability of getting periodontal disease than individuals with a high-income. [2]

Oral health is a crucial aspect of overall well-being and quality of life. It encompasses more than just the aesthetics of a beautiful smile; it is intimately connected with an individual's overall health and quality of life. Among the many oral health concerns that adults face, periodontal disease stands out as a significant threat. This article examines the complex relationship between periodontal disease risk, oral health behaviors, and socio-economic status in adults aged 35-44, shedding light on how these factors intersect and impact oral health.

Oral health literacy & health outcome

Macek et al described the relationship between oral health literacy and health outcomes through their conceptual model. According to them person's health is a consequence of the health related decisions made by them, which in turn is influenced by health literacy, modulated by the various sociodemographic factors. According to the conceptual model, health determinants such as income, education and personal characteristics influence health behaviors and oral health outcomes. [3]

Health literacy is a known mediator between socio-economic factors, health behavior and oral health outcomes in various populations, explaining gradients in oral health status and outcomes. [4]

According to a study conducted in subjects with limited oral health literacy levels it was found that they had poorer periodontal health. It was suggested that improving the oral health literacy of patients may help in the efforts to improve the adherence to medical instructions, self-management skills and the overall treatment outcomes.[5] Oral health literacy has

proved to be critical in reducing oral health disparities and in promoting oral health.[6]

Socioeconomic position indicators and periodontitisDisparities in the prevalence and severity of periodontal disease are associated with socioeconomic factors, such as education and income, and have been recognized since the1960s. Epidemiologic reports have consistently shown that i) periodontal disease is inversely related to education and income after controlling for age and gender, and ii) differences in education and income explain mode if not all of the observed disparities in periodontal disease between all subjects.[7]

Socioeconomic inequalities exist in oral health and many studies have reported it.[8] The concept of socioeconomic inequalities in oral health can be defined as the differences in the prevalence or incidence of oral health problems between individual people of higher and lower SES.[9] The presence and severity of oral diseases were reported to be increased among socially disadvantaged populations, thus suggesting a correlation between PD and social inequalities.[10]

Gender as risk factor for oral diseases

In modern medicine, risk assessment plays an important role in healthcare and clinical practice. Gender is one such risk factor known to modify the course of many diseases and illnesses. Development of risk assessment for treatment planning can be understood easily if gender differences can be established in the initiation, progression and outcome of many diseases. [11]

A meta-analysis reveals existence of gender susceptibility to oral diseases, particularly for oral cancer and periodontitis. Dental caries were found to be higher in males (52%) compared to females (48%). Among males the higher susceptibility of periodontal diseases (19.3%) and oral cancer (1.7:1) is mainly attributed to tobacco use and the metadata confirm this. The susceptibility of women to oral diseases can be related to genetic and biological factors and men related to behavioral factors. Gender susceptibility to malocclusion was also found to be higher among males. [12]

Oral health behaviors

A health related behaviour may be performed by an individual to protect, promote or maintain health and prevent disease. Such behaviour may contribute to health by influencing positively or negatively and is thought to be a risk factor in relation to disease.13 A simple representation of human behaviour, for example oral hygiene behaviour comes from the acquisition of knowledge. It leads to the attitudes, beliefs and values which in turn reflects in their behavioural outcome through skills or actions performed.[14]

Any health conditions affect the behaviour and vice versa the individual characteristics and behavioural patterns determine the health status.15 But different social, economic and environmental circumstances also play a significant role. These determinants being out of control of health professionals, health promotion interventions to prevent the disease may be applied. These interventions need to be focussed on developing personal skills to change the life style, personal, social and structural factors to promote health.[16]

Multiple session motivational interviewing has been found to be effective in changing oral hygiene behaviours, according to a review. Evidence also suggests that the interventions offered are likely to be most effective and produce long-lasting changes in those who intend to and self-monitor their oral hygiene practices.[17]

Oral health care disparities reflect unequal opportunities to be healthy, making disadvantaged groups even more disadvantaged with respect to their oral health; correspondingly, reducing oral health care disparities means giving disadvantaged social groups equal opportunities to be healthy. Pursuing equity in oral health care means pursuing the elimination of oral health care disparities, that is, equal access to available care for equal need, equal utilization for equal need, and equal quality of care for all.[18]

Addressing the Disparities: Policy and Interventions

Recognizing the complex relationship between periodontal disease risk, oral health behaviors, and socio-economic status, it is imperative to implement targeted interventions to address disparities in oral health. Government policies, public health campaigns, and community-based programs can all contribute to improving oral health outcomes.

Dental Outreach Programs

Community-based dental outreach programs can provide essential dental care services to underserved populations, bridging the gap in access to dental care.

Oral Health Education

Educational campaigns should be tailored to the specific needs and cultural beliefs of different socio-economic groups. These campaigns can promote the importance of regular dental check-ups, proper toothbrushing techniques, and a balanced diet for good oral health.

Worksite Wellness Programs

Employers can play a role in promoting oral health by offering worksite wellness programs that include dental check-ups and education on oral hygiene.

Policy Initiatives

Government policies should prioritize oral health as an integral part of overall healthcare. Expanding access to dental care, particularly in rural areas, and integrating oral health into primary healthcare services are essential steps toward reducing disparities

Conclusion

The relationship between periodontal disease risk, oral health behaviours, and socio-economic status is

complex and multifaceted. These factors intersect in unique ways, contributing to disparities in oral health. Recognizing the importance of oral health as an essential component of overall well-being, it is crucial to address these disparities through targeted interventions, policy initiatives, and public awareness campaigns. By doing so, we can work towards improving oral health outcomes and enhancing the quality of life.

References.

1. World Health Organization. The World Oral Health Report 2003. Geneva: World Health Organization. Available at: http://www.who.int/oral_health/media/en/orh_report03_en.pdf [last accessed on January 6, 2023].
2. Abdellatif H.M., Burt B.A. An Epidemiological nInvestigation into the Relative Importance of Age and Oral Hygiene Status as Determinants of Periodontitis. J. Dent. Res. 1987;66:13–18.
3. Macek MD, Haynes D, Wells W, Bauer-Leffler S, Cotten PA, Parker RM. Measuring conceptual health knowledge in the context of oral health literacy: preliminary results. J Public Health Dent. 2010;70(3):197–204
4. Berkman ND, Sheridan SL, Donahue KE, Halpern DJ, Crotty K. Low health literacy and health outcomes: an updated systematic review. Ann Intern Med. 2011;155(2):97–107
5. Baskaradoss JK. Relationship between oral health literacy and oral health status. BMC Oral Health. 2018 Oct 24;18(1):172-177.
6. Horowitz AM, Kleinman DV. Oral health literacy: a pathway to reducing oral health disparities in Maryland. J Public Health Dent. 2012;72(Suppl 1):S26–S30
7. Borrell LN, Crawford ND. Socioeconomic position indicators and periodontitis: examining the evidence. Periodontol 2000. 2012 Feb;58(1):69-83.
8. Hakeem FF, Sabbah W. Is there socioeconomic inequality in periodontal disease among adults with optimal behaviours. Acta OdontolScand 2019;77:400-7. 8. Janakiram C, Varghese
9. NJ, Joseph J. Review of the correlation between social economic status and oral diseases in India. Amrita J Med 2020;16:146-51
10. Bomfim RA, Frias AC, Pannuti CM, Zilbovicius C, Pereira AC. Socio-economic factors associated with periodontal conditions among Brazilian elderly people-multilevel analysis of the SBSP-15 study. PLoS One 2018;13:1-12.
11. Alam N, Mishra P, Chandrasekaran SC. Gender Basis of Periodontal Diseases. Indian Journal of Basic & Applied Medical Research. 2012;1(2):128-135.
12. Karuveettil, V., Krishna, K., and Ramanarayanan, V.. Is gender a risk factor for oral diseases in India? A metadata exploration. Public Health and Toxicology,2022;2(1):7-20.
13. Melsen B, Agerbaek N. Effect of an instructional motivation program on oral health in Danish adolescents after 1 and 2 years. Community Dent Oral Epidemiol. 1980;8:72-8.
14. Daly, Watt, Batchelor and Treasure. Essential dental public health Oxford university press. 2002.
15. Kaplan R M Behavior as the Central Outcome in Health Care. Am Psychol. 1990;45(11):1211-20.
16. Nutbeam D. Health literacy as a public healthgoal: a challenge for contemporary health education and communication strategies into the 21st century. Health Promot Int. 2000;15:259-67.
17. Manoranjitha BS, Shwetha KM, Pushpanjali K. A systematic review of health education theories and approaches
18. in improving the oral health behaviour among adults. Int J Community Med Public Health 2017;4:286-93
19. Northridge, M. E., Kumar, A., & Kaur, R. Disparities in Access to Oral Health Care. Annual review of public health.2020; 41: 513–535.