

Periodontal health among Swedish adolescents

Clinical, psychosocial and behavioral perspectives

Akademisk avhandling

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av

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- I. Ericsson JS, Abrahamsson KH, Östberg AL, Hellström MK, Jönsson K, Wennström JL (2009). Periodontal health status in Swedish adolescents: an epidemiological, cross-sectional study. *Swedish Dental Journal* 33, 131-139.
- II. Östberg AL, Ericsson JS, Wennström JL, Abrahamsson KH (2010). Socio-economic and lifestyle factors in relation to priority of dental care in a Swedish adolescent population. *Swedish Dental Journal* 34, 87-94.
- III. Ericsson JS, Östberg AL, Wennström JL, Abrahamsson KH (2012). Oral health related perceptions, attitudes and behavior in relation to oral hygiene conditions in an adolescent population. *European Journal of Oral Sciences* 120, 335-4.
- IV. Ericsson JS, Wennström JL, Lindgren B, Petzold M, Östberg AL, Abrahamsson KH (2013). Oral health behavior among Swedish adolescents: a cross-sectional health-economics study. Manuscript.



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Abstract

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In recent decades, considerable resources have been invested in oral health promotion programs directed to children and adolescents by the Swedish Public Dental Service. However, it is unclear to what extent such prevention programs have resulted in long-term beneficial effects in oral hygiene behavior and periodontal health status. There is limited knowledge regarding the periodontal health status of young individuals and interactional psychosocial and behavioral factors. The overall aim of this thesis was to investigate the periodontal health status among Swedish 19-year-old adolescents and to gain a deeper understanding of psychosocial and behavioral factors that interact with young people's periodontal health conditions.

All four studies in this thesis are based on epidemiological data from a study population consisting of a randomized sample of 10 % (1208 individuals) of all 19-year-olds (born 1987) living in three different areas of the county of Västra Götaland (Fyrbodals, Skaraborg, Göteborg), Sweden. The survey included an anamnesis interview and questionnaires for self-assessment of psychosocial and oral health behavioral aspects, as well as a clinical and radiographic examination. 758 individuals (63 %) from the three areas participated in the questionnaire part of the study. 506 individuals (72 %) from Fyrbodals and Skaraborg also underwent the clinical examination. In study I, the periodontal health status of the 19-year-old participants was explored through a number of clinical and radiographic assessments. In study II, an anamnesis interview containing socio-demographic and lifestyle factors, and a questionnaire for self-assessment, the Self-Perceived Oral Health (SPOH) questionnaire, were used to explore the adolescents' oral hygiene habits, life-style priorities and how they planned for their future dental care. In study III, clinical data and selected items from the SPOH questionnaire were analyzed together in order to explore whether the adolescents' oral health-related perceptions, attitudes and behavior were reflected by their oral hygiene status. In study IV, a health-economics model was used as framework. Variables and items expressing objective and subjective oral health, sociodemographic information and health/oral health-related behavior were extracted from the clinical questionnaire and anamnesis data and analyzed in order to explore the individual characteristics of importance related to demands for and investment in oral health.

The results showed that adolescents in the county of Västra Götaland have poor oral hygiene conditions with high amounts of plaque and gingivitis, with worse conditions among males and adolescents in Fyrbodals (Study I). Dental care in relation to other lifestyle factors was given high priority by 21 % of the adolescents; however, 35 % of the adolescents did not plan for regular dental visits in the future. Males were found to have less favorable oral health habits than females and three significant factors for not planning for future regular dental visits were identified in a regression model: toothbrushing less than twice daily, smoking and male gender (Study II). Oral health-related attitudes and behaviors were reflected in the clinical periodontal health status of the adolescents and, regarding these aspects as well, there were differences between genders, in favor of females (Study III). The results, based on health-economics theory and analysis, indicated that female gender, a high general self-efficacy score, living area (Skaraborg), and being a student in a theoretical upper secondary program were positively related to the demand for and investment in (oral) health (Study IV).

In conclusion, the results emphasize that a variety of factors related to the individual and the environment interact with the oral health-related behavior and periodontal health status of young individuals. Such factors should be considered in the development of cost-efficient oral health promotion programs and individual prevention programs.

Key words: Attitudes, behavior, epidemiology, health-economics, oral health, periodontal status.

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