

HKU Faculty of Dentistry finds most young adults in Hong Kong have unhealthy gums

The gums of the vast majority of young adults in Hong Kong are in an unhealthy condition, a research team at the HKU Faculty of Dentistry has reported in the first published study on the oral health of the city's 18-year-olds.

Nearly all of the 324 young adults examined by the researchers showed signs of unhealthy gums. Only 6 people in the study group were found to have completely healthy gums. Writing in the journal *BMC Oral Health*, the researchers conclude that Hong Kong's young adults have "unsatisfactory" gum (periodontal) health, and they need to be reminded to perform proper tooth cleaning to remove dental plaque, which is a major factor in the development of gum inflammation.

Aiming to study a representative sample of all 18-year-olds in Hong Kong, the research team tried to contact all students who had originally been randomly chosen at age 12 years from a random selection of schools taking part in a territory-wide government oral health survey in 2001. A total of 324 young adults were followed up and given an oral check-up in 2007, at age 18 years.

When the mouth was examined as 6 regions (sextants), the average number of regions showing healthy gums was only 1.6. Healthy gums in all 6 regions were found in just 6 people, or about 2% of the group. In addition, 9 in every 10 people had calculus (also known as tartar, which is hardened dental plaque that needs professional removal). After comparing these results with those reported for other countries, the researchers remark that "it seems that the periodontal status of the young adults in Hong Kong is worse than [in] mainland China".

Although more than half (59%) of the group had signs of tooth decay (decayed, filled, or missing teeth), the average number of affected teeth was only 1.4 per person. This number is lower than the number reported for some developed countries and similar to that reported for mainland China, the researchers comment. They also note that most of the affected teeth in young adults in mainland China were cases of untreated decay. In contrast, most of the affected teeth in Hong Kong had been treated with fillings, such as by the School Dental Care Service—Hong Kong's free dental service run by the government for primary schools.

Among the group, about two-thirds said they brushed their teeth at least twice a day, but only one-fifth used dental floss and one-half had been to a dentist in the past 3 years. On average, the group had a high level of oral health knowledge, scoring 10.5 out of 12 in a quiz on causes and prevention of tooth decay and gum disease.

Statistical analysis of the results (by negative binomial regression) revealed that people who had been to a dentist in the past 3 years had 68% more teeth affected by decay than those who had not. This finding reflects the common practice of seeking professional help only for dental treatments such as

fillings, which the researchers call a “problem-oriented dental visiting pattern”, as opposed to a preventive approach to oral care.

Furthermore, better gum health was associated with higher oral health knowledge scores, leading the authors to propose: “Young adults who knew more about the causes and prevention methods of periodontal disease would avoid those undesirable behaviors and practice more proper oral health behaviors in daily life”. Finally, the participants who brushed their teeth at least twice a day had better gum health than those who brushed once or less. Therefore, future oral health campaigns should focus on promoting proper dental plaque removal, the authors recommend.

This research was supported by the Research Grants Council of the Hong Kong Special Administrative Region. The research team members were Dr May CM Wong, Prof Edward CM Lo, and Prof Colman McGrath from the HKU Faculty of Dentistry and Dr Hai-xia Lu, now at the Department of Preventive Dentistry, Shanghai Jiao Tong University, Shanghai, China.

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Source: Lu HX, Wong MCM, Lo ECM, McGrath C. Risk indicators of oral health status among young adults aged 18 years analyzed by negative binomial regression. BMC Oral Health 2013;13:40.

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