The Usefulness of an Oral-Health Promotion Program on Japanese Working-Age Population: A Pilot Study.

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Objectives: Oral health is an important factor contributing to work performance, productivity, and general health of workers. Nevertheless, oral-health promotion is frequently neglected within occupational health, because dental examination is costly and time-consuming. Therefore, we developed an Oral-Health Promotion Program (OHPP), which is easy-to-implement without dentists, intending to achieve the oral-health promotion even at the workplace. This study aimed to examine the usefulness of the OHPP on Japanese working population.

Methods: The OHPP was conducted for 65 employees (39 men and 26 women) working in a company in Hirosaki city, Japan. At baseline, all subjects underwent salivary multi test (SMT) and responded to questionnaires regarding to their oral hygiene behaviors or oral-health conditions. On the same day, they received feedback and oral-health education by dental hygienists, based on the SMT or the questionnaires. Subsequently, 7 months follow-up was performed, and the subjects had received oral-health information during the follow-up. After the follow-up, the SMT and the questionnaires were performed on the same subjects again, and oral hygiene behaviors or oral-health conditions were compared to those at the baseline. To assess their oral-health conditions adequately, dental examination was also conducted by dentists at the baseline and after the follow-up.

Results: Compared to the baseline, frequencies of tooth brushing were significantly increased ($p < 0.05$) after the follow-up. The dental examination by dentists revealed that the prevalence of gingivitis (bleeding on probing) was also significantly decreased between the baseline and after the follow-up ($p < 0.05$). Furthermore, the improvement of tooth-brushing frequencies and the prevalence of gingivitis were significantly associated ($p < 0.05$).

Conclusions: Our results demonstrated that the OHPP, which is easily implemented, can be effective in improving oral hygiene behaviors, and consequently oral-health conditions of working-age population in Japan.

Keywords: Oral health promotion, pilot study, salivary multi test