

Other journals in brief

A selection of abstracts of clinically relevant papers from other journals.

The abstracts on this page have been chosen and edited by Reena Wadia

Prediabetes and diabetes screening

Prediabetes and diabetes screening in dental care settings: 2013 to 2016.

Estrich C G, Araujo M W B, Lipman R D. *JDR Clin Trans Res* 2019; **4**: 76–85. DOI: 10.1177/2380084418798818.

For some patients, dental visits may be the only point of contact with the healthcare system, which heightens the importance of including diabetes risk assessment for patient well-being.

This study aimed to evaluate the potential benefit of prediabetes risk assessment in the dental setting. Data from 10,472 adults in the National Health and Nutrition Examination Survey from 2013–16 were analysed for associations among prediabetes/diabetes risk factors, healthcare use and HbA1c level. A total of 8% of US adults had seen a dentist but not a medical provider in the past 12 months. The composition of this subpopulation was significantly different from that who saw a medical provider, in ways that might affect diabetes risk. From this subpopulation, 31% would be identified as high risk for prediabetes and 16% had HbA1c levels indicative of undiagnosed prediabetes or diabetes. Screening in a dental setting would have the highest odds of identifying someone unaware of their diabetes risk among those who were non-White, obese or ≥ 45 years old. Extrapolation indicates that screening for prediabetes at dental visits has the potential to alert approximately 22.36 million adults of their risk for prediabetes or diabetes.

DOI: 10.1038/sj.bdj.2019.73

Effect of diabetes on tooth loss

The effect of diabetes on tooth loss due to periodontal disease: A nationwide population-based cohort study in South Korea.

Yoo J J, Kim D W, Kim M Y, Kim Y T, Yoon J H. *J Periodontol* 2018; DOI: 10.1002/JPER.18-0480 [Epub ahead of print].

Risk of tooth loss was higher in diabetics than non-diabetics.

The aim of this retrospective cohort study was to compare the risk of tooth loss due to periodontal disease between diabetic and non-diabetics and to estimate the relative risk of tooth loss according to the severity and control of diabetes. The authors selected 10,215 individuals who were diagnosed with diabetes in the Korean National Health Insurance Service-National Sample Cohort (NHIS-NSC) database in 2003 and the same number of individuals who had never been diagnosed with diabetes during the period covered (2002–13). Diabetic individuals were divided into two groups according to the treatment modality. The number of teeth lost in each were counted and hazard ratios (HRs) of tooth loss due to periodontitis were calculated. Diabetic individuals had a higher risk of tooth loss than non-diabetic individuals (HR = 1.3). The more severe the degree of diabetes, the higher the risk of tooth loss. As the number of dental visits increased, the risk of tooth loss declined.

DOI: 10.1038/sj.bdj.2019.74

Posture in dental hygienists

Differences in plantar pressure by REBA scores in dental hygienists.

Kim J, Park B Y, Mun S J, Shim J, Choi E S, Noh H. *Int J Dent Hyg* 2018; DOI: 10.1111/idh.12375 [Epub ahead of print].

Subjects with poor posture at a level requiring intervention showed differences in plantar pressure between right and left feet.

Effects of working posture, physical balance and work accumulation on shifts in plantar pressure in dental hygienists were analysed. Twenty-four dental hygienists were included. The ergonomic assessment method of the Rapid Entire Body Assessment (REBA) was used to evaluate working posture and a Gait Analyser was used to measure plantar pressure. The subjects' mean REBA score was 5 ± 1 and 88% of the subjects showed poor working posture, with a REBA score of at least four points. Among those with a REBA score of four points or more, seven of the eight parts of the sole of the foot showed significant differences in plantar pressure between right and left feet. When changes in plantar pressure over a week were examined, pressure increased on the left side. Subjects with poor posture at a level requiring intervention showed differences in plantar pressure between right and left feet. Inappropriate posture can cause musculoskeletal disorders and the authors suggest the need for internal and external measures to maintain proper working posture, including education, exercise, improvement of the working environment and ergonomic equipment.

DOI: 10.1038/sj.bdj.2019.75

Ergonomic risk from saddle and conventional seats

Assessment of the ergonomic risk from saddle and conventional seats in dentistry: a systematic review and meta-analysis.

Gouvêa G R, Vieira W A, Paranhos L R, Bernardino I M, Bulgareli J V, Pereira A C. *PLoS One* 2018; **13**: e0208900. DOI: 10.1371/journal.pone.0208900.

The two eligible studies for this review provide moderate evidence that saddle seats provided lower ergonomic risk than conventional seats in the examined population of dental students.

This review aimed to verify whether the saddle seat provides lower ergonomic risk than conventional seats in dentistry. Six electronic databases were searched as primary study sources. The risk of bias among the studies included was assessed and meta-analysis was performed to estimate the effect of seat type on the ergonomic risk score in dentistry. The search resulted in 3147 records, from which two were considered eligible. Both studies were conducted with a total of 150 second-year dental students who were starting their training using phantom heads. Saddle seats were associated with a significantly lower ergonomic risk and posture improvement.

DOI: 10.1038/sj.bdj.2019.76