

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.

Teledentistry

Fernández C E, Maturana C A, Coloma S I, Carrasco-Labra A, Giacaman R A.
Teledentistry and mHealth for Promotion and Prevention of Oral Health: A Systematic Review and Meta-analysis. *J Dent Res* 2021; DOI: 10.1177/00220345211003828.
Online ahead of print.

Teledentistry is a promising clinical tool for preventing and promoting oral health.

This systematic review aimed to determine the effect of teledentistry-based strategies, reported in randomised controlled trials and quasi-randomised trials, with a focus on oral health prevention and promotion-related outcomes in patients of all ages. Out of 898 potentially eligible references, 43 were selected for full-text screening, of which 19 studies proved eligible. Virtual interventions were mostly asynchronous via apps (n = 9), text messages (n = 9), or computer-aided learning (n = 1). The use of teledentistry as compared with conventional strategies may result in a large reduction in the plaque index and will likely result in a large reduction in the gingival index and in the incidence of white spot lesions, with an increased effect over time. Teledentistry, particularly mHealth (messages and apps), is a promising clinical tool for preventing and promoting oral health, especially under the accelerated virtualisation of dentistry. The authors suggest future studies including a broader spectrum of the population to better inform policy and implementation.

<https://doi.org/10.1038/s41415-021-2940-0>

Is periodontitis a risk factor for rheumatoid arthritis?

Choi Y Y, Lee K H. Periodontitis as a risk factor for rheumatoid arthritis: a matched-cohort study. *Int Dent J* 2021; DOI:10.1016/j.identj.2021.01.006. Online ahead of print.

These findings demonstrate that periodontitis is associated with an increased risk of developing rheumatoid arthritis.

The intent of this study was to analyse the association of periodontitis with the development of rheumatoid arthritis (RA) using a representative population-based cohort and longitudinal matched-cohort design. Participants were 40 years of age or older and had not been diagnosed with RA between 2002 and 2006. Among the participants, those who were newly diagnosed with periodontitis between 2004 and 2006 were allotted to the periodontitis group. Among the participants, those who had never been diagnosed with periodontitis between 2002 and 2006 formed the control group, matched by sex, age, and household income at a 1:1 ratio. From 2007 to 2018, the two groups (n = 691,506) were followed to monitor the development of RA. Univariate analysis revealed that the periodontitis group was more likely to develop RA than the control group (hazard ratio 1.10), and multivariate analysis revealed a higher incidence risk of RA (adjusted hazard ratio 1.09) in the periodontitis group.

<https://doi.org/10.1038/s41415-021-2965-4>

Dental trauma during COVID

Woolley J, Djemal S. Traumatic Dental Injuries During the COVID-19 Pandemic. *Prim Dent J* 2021; **10**: 28–32.

The results suggest that the period affected the aetiology and diagnosis of traumatic dental injuries as well as patients' behaviours in seeking dental care.

This paper details the characteristics of traumatic dental injuries (TDIs) during the coronavirus 2019 (COVID-19) pandemic in 2020 at an Urgent Dental Care hub at King's College Hospital Dental Institute, London, UK. For comparisons to be made, the characteristics of TDIs from a similar period in 2019 were also collected. Data were collected retrospectively from clinical records of patients suffering from dental trauma during both periods. In total 28 patients presented with TDIs during the COVID-19 pandemic from 13 April to 8 June 2020. In the previous year, there were 52 patients with TDIs between 15 April 2019 to 10 June 2019.

This analysis demonstrated a reduction of 50% of TDIs presenting during the COVID-19 period compared to 2019. The age distribution of patients suffering with TDIs did not differ hugely for the population below the age of 50 during the COVID-19 period, albeit a higher total number of patients presented in 2019. Above this age range, there was a significant reduction in patients, with no TDIs seen in patients above the age of 70 during the COVID-19 lockdown and fewer above the age of 50.

The aetiology of TDIs were different during the COVID-19 lockdown compared to 2019. The majority of the populations had restrictions on movement and sport, social distancing measures were in place and traffic in London reduced by roughly 53%. This was clearly evident in the data analysis, with TDIs sustained from car accidents, sports and violence/assault contributing a minor 4% of the total TDIs compared to 51% in the pre-COVID-19 period in 2019. Enamel ± dentine fractures are the most common hard tissue dental injury in the permanent dentition. This study demonstrated that during this stage of the COVID-19 pandemic, this was still the case. The relative frequencies of intrusions during the COVID-19 period was far higher than the corresponding period in 2019. The main causes for dental trauma during the COVID-19 period were falls and cycling, whereas in 2019, more traumas occurred playing sport, violence/assault, and road traffic accidents. The results suggest that the period affected the aetiology and diagnosis of traumatic dental injuries as well as patients' behaviours in seeking dental care.

The authors suggest that in order to suitably manage the provision of dental services, consideration must be given to the influence of pandemics on the characteristics of dental emergencies. While trends were evident in the collected data, these must be carefully interpreted.

<https://doi.org/10.1038/s41415-021-2966-3>