

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

Trauma and oral-health related quality of life

Impact of traumatic dental injuries on quality of life in preschoolers and schoolchildren: A systematic review and meta-analysis

Zaror C *et al.* *Community Dent Oral Epidemiol* 2018; **46**: 88–101

Traumatic dental injuries have a negative impact on oral health-related quality of life of both preschoolers and schoolchildren.

Traumatic dental injuries (TDIs) are a common condition in up to 20% of children and adolescents, given their greater participation in recreational and sports activities. TDIs have been shown to cause aesthetic, psychological, social, functional and therapeutic problems, not only at the time of the accident, but also during later treatment. Given their prevalence and consequences TDIs may be considered a potential public health problem.

The aim of this study was to assess the impact of TDIs on the oral health-related quality of life (OHRQoL) of preschoolers and schoolchildren by synthesising the available evidence. OHRQoL is defined as a multidimensional concept, which includes a subjective evaluation of the individual's oral health, functional well-being, expectations and satisfaction with care, and sense of self. Together with clinical indicators it can provide a more comprehensive assessment of the patient's oral health.

A systematic search was conducted using MEDLINE, EMBASE, Cochrane, ScieLo and Lilacs databases from 1966 to 2016. The included studies compared OHRQoL between groups with and without TDIs, using validated instruments. Two independent researchers carried out the selection process and data extraction. A third reviewer resolved any discrepancies. Methodological quality was assessed with the Effective Public Health Practice Project's Quality Assessment Tool. Meta-analyses were performed using random effect models, separately for preschoolers and schoolchildren.

Of 213 identified articles, 26 studies (involving a total of 4,582 patients and 13,601 controls between the ages of 1 and 15 years) met the inclusion criteria. Most of the studies had been published in the last 5 years and their methodological quality was judged to be moderate. The TDIs group had a significantly higher chance of reporting any impact on OHRQoL than controls for both preschoolers and schoolchildren. In preschoolers, the odds ratio for OHRQoL impact for complicated (involving exposure of pulp tissue and/or dislocation of the tooth) versus uncomplicated TDIs was 1.53. Patients with complicated TDIs suffered more symptoms, required multiple and complex procedures and needed a higher number of clinical and radiographic follow-ups. The social domain was the most affected one in schoolchildren.

The authors suggest prospective cohort studies are recommended to confirm these findings and to understand how the impact of TDIs changes with time.

DOI: 10.1038/sj.bdj.2018.147

Work-related traumatic dental injuries

Work-related traumatic dental injuries: Prevalence, characteristics and risk factors

Ugolini A *et al.* *Dent Traumatol* 2018; **34**: 36–40

Crown fractures were the most frequent work-related traumatic dental injury. Age, gender and pre-existing dental treatment represented the key risk factors.

Traumatic dental injuries (TDIs) are common in patients with multiple injuries, but the occurrence of several injuries in different parts of the body may result in minor oral injuries being under-reported. There is also a lack of data on the characteristics of work-related TDIs. This epidemiological study aimed to investigate frequency, types and characteristics of TDIs in a large working community. In total, 112 TDIs were recorded, which accounted for 6% of the total occupational trauma. The highest prevalence was amongst males and those in their fourth or fifth decades. Service and office workers represented 52% of the sample, and construction/farm/factory workers and craftsmen 48%. TDIs involving only the teeth and surrounding tissue made up 66% of cases, whereas a maxillofacial injury also occurred in 34%. Crown fracture was the most common injury and root fracture or concussion the least. The upper incisors were the most commonly traumatised and 29% had at least one traumatised tooth with previous dental treatment.

DOI: 10.1038/sj.bdj.2018.148

Recommended storage medium for avulsed teeth

Which is the most recommended medium for the storage and transport of avulsed teeth? A systematic review

Adnan S *et al.* *Dent Traumatol* 2018; DOI: 10.1111/edt.12382

Milk is the most recommended storage medium for avulsed teeth when considering PDL cell viability, ease of availability and cost effectiveness.

Following avulsion, successful replantation is greatly dependent on viable PDL cells. If the tooth is not immediately replanted, an appropriate storage medium is required. The aim of the review was to identify the most recommended medium that can be used for storage and transport of avulsed teeth, based on PDL cell viability. Laboratory-based experimental studies on PDL cells found on adult permanent teeth were included. The data were collected using PubMed, CINAHL plus and the Cochrane Library, along with Google Scholar and a hand search. Sixty-seven articles were selected. The authors concluded that natural media were found to be more effective in maintaining PDL cell viability compared to synthetic products. Milk was the most recommended medium followed by Hank's balanced salt solution. Among the natural products, propolis and coconut water were also recommended. Recommendations were based on maintenance of PDL cell viability followed by ease of availability, low cost and long shelf-life.

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