

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 Paul Hellyer.

Soft drinks levy reduces sugar consumption

Pell D, Mytton O, Penney T L *et al.* Changes in soft drinks purchased by British households associated with the UK soft drinks industry levy: controlled interrupted time series analysis. *BMJ* 2021; DOI: 10.1136/bmj.n254.

Reductions in obesity and type 2 diabetes are predicted.

Increased risk of dental caries, obesity, heart disease and type 2 diabetes is associated with high levels of consumption of sugar sweetened beverages (SSBs). In 2016, the UK government announced a two year notice of the introduction of a two tier soft drinks industry levy (SDIL) to incentivise manufacturers to reduce the sugar content of SSBs.

Using data from a sample of actual household purchases, this study found a 41.6% reduction in volumes of high tier (>8 g sugar/100 mL) SSBs consumed at the implementation (but not the announcement) of the SDIL, reducing the amount of sugar consumed per household by 16.1 g (43.1%). Reductions per household were also seen in low tier (5 g–<8 g sugar/100 mL) SSBs. However, increased volumes of purchased non-levy drinks (>5 g/100 mL) resulted in some increases in sugar purchased from this source.

Overall, volumes of soft drink did not decline but sugar purchased from soft drinks decreased by 30 g per household per week one year after the introduction of the levy, in line with pre-implementation modelling.
<https://doi.org/10.1038/s41415-021-2898-y>

Poor information on clear aligner websites

Meade M J, Dyer C W. An assessment of the treatment information contained within websites of direct-to-consumer orthodontic aligner providers. *Aust Dent J* 2021; **66**: 77–84.

Regulatory bodies have a role to ensure patient safety.

Traditionally, orthodontic treatment, including the provision of clear aligners, has been provided by orthodontists or general dental practitioners. A recent trend has been for manufacturers of aligners to market their product direct-to-consumers (DTC).

An internet search of sites offering DTC aligners, where an initial assessment by a dental professional was not required, revealed 21 such sites (USA = 13, UK = 3, Australia = 4). Sites were assessed for readability, quality of information provided and measured against American Medical Association benchmarks for websites. Over half of the sites offered additional video information but the readability scores of the text corresponded to a development age of 13–15 years. Benchmarking showed that most sites were current but had minimal information about authorship, referenced source content and conflicts of interest. The quality of information provided was assessed as generally poor, with only one third stating that good dental health was essential and less than 25% mentioning the need for long-term retention.
<https://doi.org/10.1038/s41415-021-2910-6>

Barriers to dental attendance are multi-faceted

van der Zande M M, Exley C, Wilson S A, Harris R V. Disentangling a web of causation: An ethnographic study of interlinked patient barriers to planned dental visiting, and strategies to overcome them. *Community Dent Oral Epidemiol* 2021; DOI: 10.1111/cdoe.12586.

Interventions which address only one issue may not be successful.

Previous studies of barriers to obtaining dental care have been carried out amongst specific groups (eg the homeless, migrants, children) and have identified barriers such as anxiety, costs, embarrassment and (lack of) trust in dentists. However, the interrelation of the various factors has been little researched.

Using a purposive sample of attenders at six different urgent dental care provision settings in the UK, 97 participants were interviewed. Interviews revealed the interlinking of the issues which prevented routine attendance. One interviewee, for instance, identified fear and anxiety, which worsened when a trusted dentist left a practice, suffering a dry socket from the next dentist, thus losing trust, embarrassment at the consequent state of her teeth and finally mentioning being unable to afford the cost of dentures. Barriers are not necessarily fixed over time, as changing family circumstances such as bereavement may affect attendance patterns.

Interventions to address barriers to dental care need to take into account their changing nature as well as the socio-economic, emotional and cultural aspects of the issues.
<https://doi.org/10.1038/s41415-021-2909-z>

A hygienist-led prevention programme ...

Starr J R, Ruff R R, Palmisano J, Goodson J M, Bukhari O M, Niederman R. Longitudinal caries prevalence in a comprehensive, multicomponent, school-based prevention program. *J Am Dent Assoc* 2021; **152**: 224–233.

.... is cost effective and successful.

Children's caries experience exceeds 30% in many countries. In the USA, Medicaid spending on children increased by 300% between 1990 and 2010 and the number of dentists by 22% but had little impact on caries rates.

Between 2004 and 2010, a schools (>50% of children receiving free school meals)-based prevention programme was developed in Massachusetts, utilising dental hygienists only. Children (age 5–11) enrolled on the programme received twice yearly examinations, glass ionomer fissure sealants, fluoride varnish application, toothbrushes, fluoride toothpaste and toothbrushing instruction. Asymptomatic carious lesions received glass ionomer interim restorations and referral was made to a dentist as appropriate. The numbers of children with untreated caries declined by more than 50% between baseline and visit 6.

The study demonstrates the feasibility and clinical benefit of a hygienist-led approach to schools-based caries prevention.
<https://doi.org/10.1038/s41415-021-2911-5>