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.

Teaching removable prosthodontics

Kim J J, Yuan J C-C, Sukotjo C, Campbell S D. Survey of current predoctoral removable partial denture curriculum in the United States. *Prosthesis* 2021; **3**: 119–128.

The curriculum needs to reflect current practice.

The need for removal partial dentures (RPDs) amongst an ageing population is predicted to increase. Implants for tooth replacement may not be appropriate for many due to high cost, anatomical variations or medical reasons. Poor design and fit of RPDs may lead to patient dissatisfaction, non-compliance and increased plaque retention. Dentists report that RPD design is difficult and many felt inadequately trained.

A survey of RPD teaching in US dental schools (n = 66) with a 59% response rate, showed that schools teach traditional RPD design concepts, based on standard textbooks. Guide planes and the RPI system were almost universally used. Fifty percent of the respondent schools used digital technology, commonly using 3D printing of wax patterns. Half also taught the use of non-metal clasps but two thirds taught the concepts around implant-assisted RPDs. Sixty-one percent of schools reported teaching the altered cast technique (despite a report that only 6% of dental technicians use the technique in practice).

The authors conclude that the teaching of RPDs could be improved by increasing incorporation of digital technologies and ensuring the curriculum reflects common techniques and materials used in practice.

<https://doi.org/10.1038/s41415-021-3122-9>

Teaching direct composite restorations

Sidhu P, Sultan O S, Math S Y et al. Current and future trends in the teaching of direct posterior resin composites in Malaysian dental schools: a cross-sectional study. *J Dent* 2021; DOI: 110:103683.

Amalgam use will phase down.

The placement of composite resin restorations is more technique sensitive than amalgam, and success relies heavily on the knowledge and skills of the operator.

All 13 dental schools in Malaysia responded to a survey of the teaching of posterior composites. All schools taught both amalgam and composite techniques and more time was spent teaching composites than amalgam. All schools used the principles of minimally invasive cavity design, although some commented that 'pins may be required as additional retentive features.' In most schools, rubber dam isolation was mandatory. The total etch technique was widely taught, as was lining deep cavities with calcium hydroxide and/or glass ionomer.

Schools anticipated that the teaching of amalgam would phase down over the next five years. Techniques not considered best practice, such as the use of pins, bevelling margins and the use of liners, are discussed.

<https://doi.org/10.1038/s41415-021-3148-z>

Teaching the new periodontal disease classification

Abou-Arraj R V, Kaur M, Alkhoury S, Swain T A, Geurs N C, Souccar N M. The new periodontal disease classification: Level of agreement on diagnoses and treatment planning at various dental education levels. *J Dent Educ* 2021; DOI: 10.1002/jdd.12636

An understanding between specialities is important for patient care.

A new classification system for periodontal disease highlights the need for all practitioners to be educated in its implementation. A common understanding of the disease supports patient management.

Second- and fourth-year undergraduates (D2, D4) and orthodontic and periodontology postgraduate students (OS, PS) from the University of Alabama received identical teaching about the new classification. Ten clinical cases were then presented to each group in an electronic survey, with diagnostic and therapeutic options offered.

PS more consistently agreed with the gold standard of diagnoses and treatment set by two experienced periodontists. Similarly, D2's agreement on diagnoses was lower than D4, OS and PS, emphasising the importance of learned material being embedded in daily practice. There was moderate to substantial agreement across all four groups about non-surgical treatment options and maintenance.

The authors suggest that it is possible to successfully educate non-periodontists, to identify broad disease categories, to recognise disease severity and to understand the influence of risk factors.

<https://doi.org/10.1038/s41415-021-3147-0>

Teaching clinical skills

Malau-Aduli B S, Lee A, Alele F, Adu M, Drovandi A, Jones K. Preclinical to clinical transition experiences of dental students at an Australian Regional University. *Eur J Dent Educ* 2021; DOI: 10.1111/eje.12687

Transitioning to clinic helped by peer and mentor support.

The transition from pre-clinical to clinical teaching is challenging for students. Challenges include adapting to professional socialisation and collaboration, heavy workload and a lack of confidence in the application of theoretical knowledge to patient care. Year 3 students (n = 69) at James Cook University, Queensland were invited to take part in an online survey and focus groups to review their first clinical year.

Students had a positive outlook on their education. Empowering students and encouraging resilience optimises learning. Building collaborative relationships with peers and senior students was a major coping mechanism. Institutionally, the transition was considered abrupt and preparation earlier in the course may be important. Clinical supervisors played an important role in the process, but their inconsistent approaches were a source of stress. Students felt, however, that they had begun to develop personally and professionally during their first clinical year.

<https://doi.org/10.1038/s41415-021-3148-z>