Periodontal education – back to basics

Periodontal education, much as general dental education, is shifting from conveying thorough medical understanding to mastering technique-based skills.¹ Too often we teach and assess our students by the number of specific procedures they have performed over time rather than their ability to examine, diagnose, plan and treat periodontal disease. Obviously, it is much easier for both the teachers and the students, because a number can be easily communicated and calculated, with no need to develop sophisticated evaluation techniques for our students. But is this what teaching periodontology is all about? The number of scaling and root planing lessons? The number of pocket probing exercises?

Our job as periodontal and dental educators is to make sure that our students learn about and understand the disease so that they will be able to examine a patient, diagnose and assess their periodontal disease, including its severity, and tailor a treatment plan that will eliminate the active disease effectively and responsibly. Then they should know how to maintain periodontal health in the long term. This is not done only by the technical knowledge of scaling and root planing; although it is important to be able to perform professional scaling and root planing, if it is done without the basic understanding of the disease, it is almost worthless. Moreover, technical skills will improve with time, but basic understanding of our profession is much more fundamental and far more difficult to acquire later on.

Making sure our students understand the nature of the disease, its etiology and prevention, as well as inflammation reduction, are the first basic steps. The fact that the vast majority of the diseases we treat as dentists (caries and periodontal diseases) are plague induced should make them realise that plaque control is the most crucial factor in controlling most oral diseases. This means that each and every patient should be actively instructed again and again on how to effectively remove and control plaque and how to prevent further disease progression over time.^{2,5}This should not be mere lip service, but a continuous and genuine effort to improve patients' home care, as this is known to be the single most important factor for periodontal disease control, prevention and treatment. Our curriculum should teach students how to perform comprehensive periodontal screening and examination, followed by proper diagnosis and risk assessment for the patient.

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Classification of patients and risk assessment should be part of our periodontal education. As widely performed today for caries, periodontal risk assessment is an important step in the overall treatment plan. This must be incorporated as an essential part of treatment planning, preventive measures and maintenance.

Because it takes time to observe periodontal treatment results, we should encourage our students to frequently re-evaluate results and plan the next steps according to these results. Re-evaluation is a great learning tool that we rarely utilise properly. Assessing what was more effective, what was less effective, and how to increase efficacy will improve the overall understanding of periodontal disease and treatment. Discussion with the students (and the patients) about the results of the re-evaluation will benefit all concerned and will probably improve the outcomes of our treatments.

In pre-clinical teaching as well, while providing students with the necessary technical skills using different simulation techniques, understanding the etiology and treatment rationale should be emphasised in conjunction with acquiring the manual skills. Furthermore, emphasis should also be placed on the inflammation process and its relation to systemic conditions, as knowledge of the inter-relationships between oral health and overall systemic health increases. Our future dentists should understand the underlying mechanisms in order to be able to communicate them to their patients.

They should also be exposed to newly introduced developments and techniques, but mainly for the purpose of awareness, as we cannot expect competence in those areas. On the contrary, we should focus on the fundamental understanding of periodontal diseases and the concepts of prevention, treatment and maintenance rather than new techniques with less evidence-based support.^{3,4}

Last, but definitely not least, incorporating the maintenance phase into the treatment plan from the beginning is another message that should be clearly delivered to our students. As periodontal Editorial



disease is a chronic condition, life-long maintenance and follow-up is part of the overall treatment plan. We cannot teach them how to control periodontal disease without emphasising long-term follow-up and maintenance.

Spending more time on the overall understanding of the disease, preventive methods, careful risk assessment and long-term follow-up and maintenance will provide our graduates with a better overview of periodontology and improve the periodontal well-being of our patients.

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- Levin L. Dental education are we losing track? The need to revisit disease control-based therapy understanding. Quintessence Int 2013;44:555.
- 2. Levin L. Prevention the (sometimes-forgotten) key to success. Quintessence Int 2012;43:789.
- 3. Levin L. The need for evidence-based medicine for improving oral health strategies. Oral Health Prev Dent 2016;14:99.
- 4. Sculean A, Banerjee A, Petersen PE. Prevention and personal responsibility. Oral Health Prev Dent 2016;14:3-4.
- 5. Tonetti MS, Chapple ILC, Jepsen S, Sanz M. Primary and secondary prevention of periodontal and peri-implant diseases–Introduction to, and objectives of the 1th European workshop on periodontology consensus conference. J Clin Periodontol 2015;42(suppl 16):S1–S4.