

IN BRIEF

- The benefits of a total body approach to dentistry.
- A way of looking at head, neck and back pain of dental origin.
- Assessing the whole patient within the dental context.
- Understanding stress of dental origin.
- Relating the bite to cervical spine function.

A way of dentistry

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I believe that each one of us is capable of finding something of special interest within dentistry. Head, neck and back pain of dental origin has consumed me within my practice for years, but I appreciate that it is not for everyone. It has led me into areas in which I have often found myself caught between the science on which we pride ourselves as being the basis of our noble profession and practice, and the less comfortable and less 'explainable' areas of belief in the effectiveness of treatments, despite not being able to fully explain them in terms of that same, reassuring logic of science.

Our profession has always been prepared to push the boundaries of science and technology in an attempt to find the best, use the best and be the best. In this there will always be healthy and lively debate from individuals passionate about their work. We are a profession that sits somewhere between science and the humanities, attempting to give clear guidelines on the vagaries of the mouth while working on people who do not fit the model, do not always agree with our diagnosis and are certainly becoming too well educated about health issues for *our own good!*

It used to be the case of 'me dentist, you patient, sit back and let me get on with it', although this was more than most dentists would actually utter as the unsuspecting patient mounted the chair for a routine check up that resulted in wall to wall amalgams and a scale and polish, courtesy of an over indulgent health service. Patients became used to morose, monosyllabic practitioners

who mauled over their molars, scraped at their incisors and tapped expectantly on vital teeth in the hope that the blow would elicit a reaction worthy of a root filling.

No longer is this the case. Patients are educating themselves and appear more demanding than ever before. While the health service has held on to its stance the private sector has buckled under the weight of patient power. Quite rightly so, for we are here to serve not dictate. While we may voice our professional opinion, it is only through discussion with the patient that a treatment plan can be achieved. We may offer scientific arguments but the fact remains that people believe what they say, not what we tell them. Nowadays we need to be congruent with the patient's demands and understand their needs, hopes and desires. As long as this does not conflict with our professional beliefs, we need to cater to them.

In their education, many patients believe that what happens in the mouth can potentially have disastrous effects on the rest of the body. The debates on mercury toxicity, water fluoridation and root canals are evidence of this, as too is the relationship between periodontal and cardiovascular disease.

Patients suffering anything from ME to MS, hypothyroidism to chemical toxicity are searching for answers and many are looking into the mouth, much to the chagrin of the busy practitioner who just wants to get on with the job.

Indeed, dentistry can be defined as a very broad subject full of interesting case studies called patients. They come in all shapes and sizes with varying beliefs. So what if a patient comes in with a clove of garlic in the ear, tea tree down an open root canal and wearing a gas mask? No matter if the patient douses the chair before sitting down, places kozbats on their chest or distributes crystals in strategic positions around the surgery, they are still entitled to an opinion and a voice to be heard.

The patient has a belief system that may not align with ours and that is perfectly acceptable; we don't have to treat them and they don't have to be treated. We can agree to disagree and send them on to someone else with our pride intact. This is a far cry from attacking their belief system and sending them packing.

I have found such challenges much less disturbing since I looked at the work of Austrian Hungarian Endocrinologist, Dr Hans Selye. He stated that 'Stress is the non-specific reaction of the body to any

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demand placed upon it.' He went on to say that stress is cumulative, one stress adding to another until we go from '... ease to disease'.¹

Applying such a statement to areas of dental practice starts to make some sense on many different levels. For example, has anyone else noticed that October heralds the onset of root canal season? Grumbling teeth flair up, old root canals abscess and patients moan. Could it be that the change of the season, change of weather and the changes in the immune system as it fights the first cold of the year are responsible for this outbreak? In Selye I found a model that I could apply to dentistry; an uncomplicated model that allows the operator the opportunity of evaluating the whole patient and determining the best course of action for the individual rather than a 'one size fits all treatment modality'. The latter being a stereotype that may lead to failure and disillusionment for both patient and practitioner.

What do I mean by this? Let's take the example of a young female orthodontic patient who attends for a consultation for crowding. Stereotypically, we look at the patient, the models, and the radiographs and decide on a treatment plan that may well involve premolar extractions, brackets and headgear. This treatment will ensure a fantastic dental result but may be catastrophic for the patient.

In this case, the patient suffered blinding headaches the moment the bands were placed. Removal of the fixed work eradicated these headaches. On taking a further, detailed history, it transpires that at birth the patient was a forceps delivery with a cranial distortion pattern, irritable and always crying as a baby. As she grew she demonstrated a kyphoscoliosis, leg length discrepancy, headaches, poor concentration at school, evidence of Attention Deficit Hyperactive Disorder, and intolerance to dairy products, red food colouring and doughnuts! Selye's model would suggest that this patient was stressed out. He stated that the stressors are physical, chemical and emotional which cause a reaction within the body that is non-specific as such but very specific to the individual. The orthodontic approach, while perhaps dentally and aesthetically correct, could be the treatment that takes the body from ease to disease, stress to distress. A history taking that looks at the whole

picture rather than the models and radiographs may well dictate an alternative treatment plan – a plan that unwinds the cranial distortion pattern, unlocks the cervical spine as it relates to the TMJs and thus helps the scoliotic pattern, leg length discrepancy and reduces the stress on the whole system. Thereby, according to Aelred Fonder, reducing the dental distress and normalising the body, both soma and psyche.²

This approach takes away any discord between the functional and orthodontic fraternities as it relies on a total body history prior to treatment. Also, it may well indicate the need for a team approach as cranial osteopaths, chiropractors or cranio-physiotherapists integrate their treatment regimes with those of the dental profession to secure a good healthy body into adulthood.

Patients with head, neck and back pain of dental origin need special consideration. Travell introduced myofascial pain dysfunction syndrome. In her trigger point manual she shows us that dental pain may in fact be muscular pain masquerading as toothache.³ I remember being referred a lady who got over-excited while playing the organ in church. She had fallen off the organ stool and fractured her hip. However, it wasn't this that troubled her but the intense toothache that she had. A couple of dentists tried everything from root fillings to extraction to rid her of her pain and yet it persisted. When she came to me I was in the fortunate position of hindsight. The problem was caused by a blow to the face as her jaw struck the keyboard on the way to the floor. She had myofascial pain causing her dental pain. Treatment aimed at relieving the muscular problem alleviated her pain. Was it scientific? I'm not sure, but it worked.

Another patient came to see me with a six-year history of headaches. He had been everywhere, done everything and nothing had helped. I made an upper partial denture at increased vertical dimension and his headaches disappeared. This was fantastic until I decided to get clever. To give relief to the upper jaw I decided to construct a lower splint for night-time wear. The headaches returned with a vengeance. He was a true FUD (Forward Uppers Down); when he swallowed he strained his head forward like a bird swallowing. The opposite is a BLU (Head Back in the

swallow Lowers Up). I placed the right splint in the wrong jaw and created the very problems that I was attempting to alleviate. Now this is not rocket science, in fact I doubt that it is science at all, but it works. These treatments were aimed at reducing the dental and muscular distress that was affecting the patient. Working in this way we can look at the various treatment modalities that we use on our patients with respect to their individual histories.

We have science and we have the very human element to deal with as practitioners. In practice, I have found many things that work and equally many that don't. Hopefully we are all like this, otherwise I am out on my own and the only one who ever got it wrong. Back in 1985 I looked at the work of Pankey, Gelb, Fonder and Travell. This shaped my professional career and I started to look at head, neck and back pain of dental origin. Janet Travell³ in her trigger point manual showed me that not all dental pain is dental, that sometimes the pain is muscular. So, too, the work of Guzay, a physicist who found that: 'the pivotal point of rotation of the condylar heads is between C1 and C2'.⁴ Essentially, malocclusions and TMJ dysfunction may cause pathology in the cervical spine.

Mariano Rocabado, a Chilean physiotherapist, stated that no joint works well at the limit of its range of motion. This includes the TMJ.⁵ So, romancing the condyl up into the glenoid fossa could be responsible for pathology not only in the joint but also in the cervical spine. Restoring vertical dimension appears to reduce symptoms in the head and neck while restoring function to the masticatory system.

Going outside the box and looking at the whole system often gives us answers that were never presented in dental textbooks, but they are valid. Working with other professionals from osteopaths to chiropractors to physiotherapists to podiatrists gives a dimension to our work that allows a more complete treatment of the patient. Understanding that changing the bite can dramatically affect the rest of the system was summed up by Fonder who stated that:

'Dental distress is produced by maloccluded teeth and the resultant spasms and malfunctioning of the musculature of the jaws, head, neck and shoulders, causing physio-pathological alterations

throughout all the systems of the soma and psyche. Dental distress routinely produces Selye's General Adaptation Syndrome. Widespread normalisation is observed in all the systems of soma and psyche, when a corrective dental splint restores occlusal balance, allowing the powerful muscles of mastication to function at their physiological contracting and resting lengths'.²

However, let us not go the way of our medical colleagues who specialise to such a degree that you can be suffering from cancer and no one looks at your heart disease. Rather let us have a baseline history taking that includes all aspects of clinical care from perio to ortho to headaches. What a service we

can provide if while placing implants we also rid the patient of headaches. What care we give by looking at nutrition for periodontal patients; not only do we help their oral condition but we tap into their systemic disease at the same time.

Events of life, courses, science and patients impact on our lives in very different ways, with the result that we shape our own futures based on the degree we earn and the experiences that we gain over our years in practice and life. This essentially means that while we leave dental school with similar knowledge, our journey over the years may lead us to widely differing views. This is called life. As long as we hold to the belief that we are doing the best for our patients

and causing no harm then this difference adds a richness and depth to our profession while, at the same time reducing our own stress levels.

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2. Fonder A. *The dental physician*. Rock Falls, Illinois: Medical-Dental Arts, 1985.
3. Travell J G, Simons D G. *Myofascial pain and dysfunction*. The Trigger Point Manual, Williams and Wilkins, 1983.
4. Guzay C M. *The Quadrant Theorem*. Chicago: Doctors Dental Service, 1980.
5. From seminar notes. (Professor Rocabado is currently Dean of the Rehabilitation Science Faculty at the University of Andres Bello, Santiago de Chile, Chile. He is also Head of Physical Therapy and Physical Medical Rehabilitation at Integramedica, Santiago, Chile and Professor of Head Neck Biomechanics on the Post Graduate Orthodontic Programme, School of Dentistry, University of Chile.)