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Looking Over the Fence. A look at Psychiatry from Another Discipline

INTRODUCTION

Presenting yourself to the world.

How a person is perceived is as a result of that first meeting and the deeper and more complete person remains hidden, often for long periods.

This process maybe imprinted or genetic, I am not the one to ask on this. But I have learned that frequently a small challenge to the typical question 'how are you' when seeing a pain-patient for the first time can prove helpful. By challenge I mean to ask them to justify their automatic response. Some may respond well to 'if you're ok, why did you come!?' Most will not of course and the approach must be less direct and gentler – such as those well known to most.

For most the veneer is thin and beneath there is a pretty resilient person. Resilient in the sense most cannot demonstrate their pain is genuine. I will touch on this later, as I have been on this path and most health professionals are blind- myself included. We are captives of our education and breaking out of this can be tricky... for a dentist to talk in terms of catastrophizing proves risky as colleagues can neither see from your perspective nor in most cases be bothered to and some are genuinely challenged.

We as health professionals have to be validated not by other than patients.

The same is noted in patients – that of preconceptions. Coming to a white-coat they have already put the health professional into a descriptive box.

People generally have learned that there is little social currency in moaning and presenting a bad sad image, therefore they conjure up a nice, if false front.

I am frequently reminded of this by Ellen. A woman who reported very poor outcomes from surgery when her jaw was repositioned. There had been 3 earlier attempts to 'correct' an orthodontic problem.

Maxillary repositioning where the maxilla was shifted 6mm forwards and the front tipped up 3mm was the fourth in a succession of changing an 'under-shot jaw. First the mandible was sectioned and moved forwards to put front teeth in a typical relationship. Sadly there was an 'overshoot' into a bull-dog like cross-bite. This was 'corrected' by moving the upper jaw forwards but was done leaving an 8mm space between molars so she could never chew. A second corrected the chewing issue, but left a 4mm gap between front teeth so biting was not possible. This trio of unhelpful outcomes seems to follow the story that difficulties are not evenly spread, but are dumped on one person.

The fourth relocation of the upper jaw was responded to with her lower jaw trying to meet a newly placed upper jaw and in so doing a combination of her tongue muscles bulking up and the jaw joints being misaligned resulted respectively in her tongue filling her pharynx so she could only breathe with her tongue resting on her lip and the vascular bed between the jaw-joint's condyle and the fossa wall being compressed. This neurology is better covered in section 6. On falling asleep her tongue retracted. . In effect she could only sleep for as long as she could hold her breath.

Exhausted was asked 'are you coping?' - Her reply was simple – tears, silent tears. Later her emails abruptly stopped in the midst of compiling a case for her to take to court. I am sadly aware that she may have taken her life as further attempts to correct this all failed.

Ellen was always very well dressed, did not complain, or criticise. The veneer was firmly in place.

This is still an illusion to how people are damaged and manage. The painted surface is not to be trusted. There are simple ways to anticipate these issues and without great frontal attacks.

Pain models.... Do we have this sorted? Biopsychosocial vs Cartesian models

The failure of the older Cartesian pain model prompted the development of the biopsychosocial pain model [1, 2].

The latter did explain more of pain and offered insights into the internal pain management systems. Without this there would be many who could never be resolved. Henry Belcher wrote with great insight into the context of the trauma. Yet neither pain model nor their variations are complete. In treating craniofacial pain, identification and subduing of primary pain sources – most of which are subclinical and the patient remains unaware of them – are nonetheless potent and will keep the whole pain process viable. Neither of these primary pain model addresses these issues leaving a gaping hole in the diagnostic process. One major issue I have noted is that most who deal with pain, depression, anxiety, poor sleep etc. seem never to touch the patient. Palpation of the muscles associated with the area suspected can be invaluable... but then dentists can wait to get going and drill something. We are what we learn.

What I have found invaluable is that of Motor Reflex testing. An injured anatomical feature, be it a lumbar disc, a twisted

ankle or an inflamed appendix all recruit muscles to protect it. The motor power for this is robbed from other muscles and this allows 'other muscles' to become a window into the influence of subclinical pain and its management spinally. That is reflexively.

When motor power is diverted from its normal part, say a leg or an arm, the limb is less able to resist deflection. Yet as Dr. Janet Travel (Trigger Point Manual) reported in the 1970's when the primary or causal item was numbed with a local anaesthetic then the distant pain resolved. The pain was never in that distant region, just referred.

In his text: Bell's Orofacial Pain; the current author Prof Jeff Okeson notes it's the dentist who is responsible for distinguishing site from source of pain. Travell's text shows this referral process is very predictable, but often the deeper question remains unasked. Why does that muscle generate a trigger point? The answer is deceptively simple – it's doing its job and protecting something.

Find that something and you can subdue the process rather than symptoms. Fix the trigger point and you really have done half the job. Offer a drug and the question remains... What was really achieved?

The use of Motor Reflex Testing can fill a book and is more than a helpful tool, if well taught it is pivotal in many otherwise refractory cases. (See section 13 Cases)

Influence of sleep

There are many complexities in sleep, but I will focus less on sleep per se' and look at the oropharyngeal airway. The patency of the airway is absolutely pivotal to survival. The implications of this is understood when people respond to a posed and hypothetical question; 'I am going to monitor your heart rate when I put this plastic bag over your head'... which of course has to be approached gently and when the person understands you are not really going to do this, but trying to get them to understand impairment of airway is serious. They do understand intrinsically that suffocation at any level is unhealthy[3-35]

Puzzled by the comorbidities associated with sleep apnoeas, from infancy to the aged, it took some time to decipher that the epidemiology of the most obvious medical complication of OSA, that of diabetes, follows the fall of sugar prices and the inevitable rise of consumption very closely, even dipping

in numbers during WWI and WW2 as consumption dropped. Sugar use and diabetes are linked totally. The question is how!

Sugar – as well as alcohol and tobacco smoke – acting epigenetically on the early neural plate and inducing HOX and other genes (SOX FOX and Sonic Hedgehogs) to interfere with the neural crest cells growth pattern and resulted in smaller than ideal midface cartilage forms and thereby a smaller naso-oro-pharynx.[35-42]

The link in the chain from diet to pathology came in the form of intermittent hypoxia [32, 33, 43-60]. Plainly the root cause and the spread of involvement is expressed in the comorbidities.

Put very simply – nightly trips to Mt Everest and back – often many per hour – transcends the ability of the red blood cells to adapt compared to simply living and training at altitude and forces open the inflammatory cascade. Three year olds who snore have similar spectra of inflammatory chemicals to adults who have recently suffered a heart attack.

The issue is simply not the disease of life, that is the longer you live and are exposed to social and chemical toxins the higher your risk factors are, these processes are now well known the young [23, 24, 61-63] and in the VERY young. [64-66] Bonuck and Freeman show social development is impaired in these processes and can be tracked to as young as 6 months of age. These adverse changes are irreversible. It is well researched but little recognised and highly likely those in lower socio-economic populations are over-represented due to the high levels of the three epigenetic factors Sugar Smoking and Alcohol seen in their diets.

Thus there is a compounding cycle of diet and effect progressing. Sleep is a critical neonatal and early childhood function and where the oropharyngeal is impaired and James Mold's study [67] indicates that 90% of people attending their doctor have sleep related problems, yet very high proportions are not noted, discussed and over 80% are never diagnosed. Maybe this is why bodies such as American Academy of Pediatrics calls for sleep screening of all children.[67] Prof James Mold's team showed that the issue stems from the health professionals. In tracking the electronic records of Primary Care Clinicians (n= 180) in 44 sites over 5 major locations, Mold estimated with high accuracy that more than 90% of people visiting their doctor had a sleep-related issue. This has taken time to impinge on them and the above gives some insight.

Others now recognise this situation and its base need for collegial recognition and induction into everyday professional life in all disciplines where people are seen who breathe [68-71]

Equally it can profit much from a glance over the professional fence – go to a lecture that you normally wouldn't, watch an off-topic webinar. How do other disciplines handle the things you see daily?

Tooth decay – an Ent may look at acid reflux, few dentists do and there is little dental literature on this. [72, 73] While Bonuck and Freeman have shown the impact of facial growth/ snoring others have demonstrated improvement with such as Bowen technique, Butekyo breathing, Gut-healing; and lots more. [74-77]

[78-82]. The various members of Dr. David Gozal's wide collaborative group is producing good material.

Simple questions you may pose to a person or a child/parent. 'Assuming your bed was made before you got in – is it tidy or trashed in the morning?' Trashed means restless sleep with few incursions into deep and lack of restorative sleep.

Try 'do you ever get up and go to the toilet at night?' There are two hormonal pathways for this. Vasopressin – made only in level 4 or deep sleep constricts blood vessels – in this case renal ones.

Butler and Heron reporting from data in the Avon Longitudinal study of 14,500 families and estimated there 150,000 12 y.o. UK boys who bed-wet at least every week. This when reflected on must impose serious social difficulties on these boys, families and friendships. What feelings must accompany a wet bed being put out to dry where prying eyes may see?

The impact on heart health. Atrial Fibrillation is now accepted as OSA comorbid. Low intra-thoracic pressures seen during apnoea can lead to atrial over-filling.

Hypoxia cycling which is akin to a fleeting trip to Mt Everest/ return often 20 or 30 times per hour – local hospitals seemingly don't cringe at 50 times per hour. But this is known and shown to be the underpinning of heart, cardio, cortical and endothelial damage.

Given the prevalence of epidemiological implications of OSA/SDB (obstructive Sleep Apnoea/Sleep disordered breathing) which in no reputable study shows less than 50% of a population are involved and most studies claim closer

to 70%[67]

It is imperative that poor sleep be more than just considered, but screened for starting at birth and during critical formative years. Various specifics can be monitored such as growth profiles, neurological development, social and behavioural development and moods.

Influence of pain

Few people in pain can be happy! Yet so few have ever been investigated for low-grade chronic pain, particularly in a collaborative manner. This is really that few people are prepared to join the diagnostic dots. A harsh comment, but one too often seen clinically to have been sidestepped.

The difficulty becomes overwhelming in that most mainstream health professionals are not able to have time to look outside their own disciplines. While in an ideal world this would be untrue but the volumes of new research and information means each discipline already has large backlogs of information untapped. Therefore there is a place for simple overviews. Bullet-pointed and clinically orientated check lists – well researched and verified – that can offer a snapshot window into related and overlapping disciplines, without the drudgery of sitting watching irrelevant and difficult topics.

Pain is a classic example. Most pain treatment is accomplished with a mixture of physical modes and medications, when in fact most pain is not apparent, its subclinical, this poses a major health burden. The IASP definition of pain notes that it can't be called pain, until the person can tell you it's hurting. Palpation – even randomly around head and neck lower back and pelvis will reveal many highly active trigger points. Then other sources of pain are elicited within joints. Most often it's not the big joints. (See below Primary Sources of pain)

These joints are potent and disruptive and can be seen in their correlation ships to have mental intrusions. While they may not be the whole picture, they do form a larger part than often suspected.

The ones that are least discovered in joints are linked to the generation of what Dr. Barry Sessle terms an afferent barrage.[83]. In consecutive patients where the jaw joint has been protected, or more accurately, decompressed there is prompt change in mood and behaviour.(unpublished data) The cortical response to short-sharp delivery of high volumes of nociception was clearly shown in an elegant fMRI study of

Otsuka (84), in which students wore an oral splint that had a slope across the front driving the lower jaw back as they clenched. Some had to abandon the clenching within seconds as they felt psychologically overwhelmed due to an intense barrage of nociception.

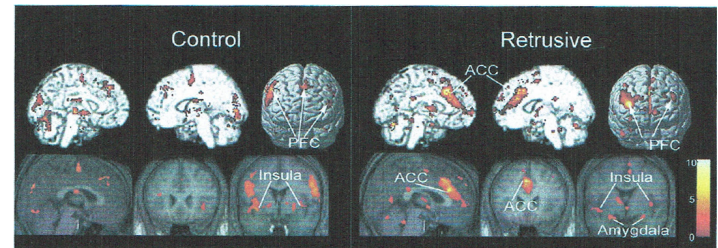


Figure 2: Signal increases associated with clenching the control splint (left) and the retrusion-forcing splint (right). Upper row: activated areas superimposed on a template. Lower row: activated regions superimposed on the mean TI-weighted MRI for all subjects. Scale: t value.

Otsuka used ramped lower splints that on clenching forced the mandibular condyles distally squashing the vascular tissues – highly impregnated with pain receptors – against the fossae walls.

Within the 10 second clench, some students abandoned the study, stopped clenching as they were emotionally overwhelmed and felt suicidal.

Most 'pain' can't be called pain – it's 'Difficult to tell'!

This is where many clinicians have found MRT (Motor Reflex Testing) which, by on/off switching can non-invasively and repeatedly isolate the primary source of afferent nociception. The primary and easiest test is that of the Wall test. Developed by late Dr. John Beck, and adds additional stimulation to the radial nerve, thereby the spinal circuit, and sees if there is the ability to resist deflection in the arms – legs also will suffice. Where there is a failure of resistance to deflection, first discern whether it is below or above the waist. There will be difference in response when leaning against a Wall and the lower half of the body is given postural support and the volume of afferent signalling drops. In such conditions the motor diversion is reduced and normal muscle function follows.

If there is little or no difference then the primary source must be above the waist. This as shown by Mehta, Beck and Olmos who have radically refined these tests to give a process of predictable progressive and structured isolation to trace the primary afferent generator to a myotome or dermatome. In short you can find the source of pain – not from the patient's perspective, but from the Brain's perspective.

Primary sources of pain... TMJ, Upper Cervical Vertebrae, Lumbar, sacrum.

These 'innocent' pain generators, typically type 4, free-end nociceptors are found in joints which are important to viability. If the body part is of low overall importance to remaining alive, there are usually fewer pain receptors. This is seen where the likelihood of accessing these tissues is less, for example chest and gut and certainly brain.

The reverse is seen in the eyes where the Trigeminal nerve supplies the Sclera. Identical receptors are present and in far higher numbers in the vascular bed of the TMJ (Temporomandibular) joint.

The mouth is often the primary and only viable airway. The lumbar, sacral and coccyx are also important in movement and remaining safe and alive.

The simplest MRT for the TM Joint, also responsive to palpation, is that of comparing motor reflex (deflection resistance) when the person is biting – and repeat with their jaw moved forwards. The clench is seen every time they swallow – up to 2000 times per day. Ideally there is a particular method* to find the ideal mandibular position, but suffice it to use an edge-to-edge bite for most. With a finger pressing on the Radial Nerve with light pressure, the overloaded spinal reflex circuit will not be able to generate adequate motor power in Arm and Shoulders to stop deflection where the vascular bed is compressed. Moving the mandible will ensure there is no chance of such compression and the resultant confirmation is seen in the change in motor response. This is not testing 'muscles' as they nor the jaw are neurologically changed. This is a purely neurological method to show that the suspected joint is producing nociceptive signalling when the jaw is in 'that' position. MRT also eliminates cortical involvement which includes subjective involvement often of keen to help patient. These are spinal reflexes and are genuinely tested and proven.

*Sibilant Phenome – using phonetics to find the ideal jaw position.

Testing and challenging the brain via the muscles

As outlined above, there are many refinements to the whole process of isolating sources of pain typically TMJ, upper cervical vertebrae, lumbar spine and pelvis including the tail bone. It is notable that in order to maintain oropharyngeal

airway patency, almost invariably where there is shortened mid-face growth, the airway is sub-optimal and there is equally a forward repositioning of the head often recruiting shoulder muscles to gain and retain patency. This moves a large percentage of body mass forwards of the centre of Gravity and this forces postural adaptation. This can't happen in the neck without altering airway patency, therefore remaining postural adaptation is seen in the lower back. Long term use of these large muscle groups engenders trigger points and pain as well as high levels of energy expenditure.

Shifting the jaw forwards or adding a vertical dimension using a couple of wooden tongue blades is often enough to regain a patent airway and in this state the head will recover towards normalcy if not completely.

These methods offer an insight into the level of afferent signalling which in turn has a frequent role in depression and anxiety. Any form of chronic nociception – sub clinical or of reported pain will contribute to a mood change. Few people in pain are happy. [85]

The prospect of partial suffocation is met often with an anxious response. Sadly medications offered such as 'sleeping pills' exacerbate the situation by further compromising the pharynx with muscle relaxation.

Life's physiology –

Collagen esp. mothers and post-menopausal women.

A significant contributor to un-wellness are the issues surrounding the state of collagen. As time inevitably takes its toll, the tight spirals of youth are exchanged, some say for wisdom, but in reality it's simply an unwinding of the collagen spiral and drooping of soft tissue. This includes the tissues of the face and neck – not confined to the visible, but to the walls of the pharynx which become softer and more able to touch and occlude the airway. Equally the results of the 'birth hormone' Relaxin, allows both the pelvis and the skull bones joints to have some degree of extra mobility. While these certainly are over-represented in lower back pain presentations clinically, the effects of softer tissues in the pharynx are little noted. The development of snoring and associated health issues, including fatigue and its bedfellows anxiety and depression are particularly seen in 'post-menopausal' women with greater prevalence it seems – but not reported, in those who have had a hysterectomy. These are significant issues and warrant consideration in terms of OBGYN planning and when consi

[86-89] dering irreversible procedures. The effect of unravelling collagen in the throat simply means an increase in OSA and in systemic inflammation.... The literature is replete with data on bone and other changes in the elderly female population.

Fat deposition. As metabolic needs decrease along with work-style into a more sedentary life, weight is accumulated, particularly illustrated in what appears to be considered a sign or measure of raised-risk for cardiovascular health issues. This is 'central obesity'. Predominantly a male prerogative, it is also seen in post-menopausal women. The two places that fat is deposited are the belly and in the lateral walls of the pharynx, with obvious issues of airway patency.

These issues are of use in determining treatment planning. Most of these people are exercise-resistant and also to major dietary change. Both can have a positive impact on mood and behaviour.

Sleep fragmentation – quickie tests. Toilet trips/ bed-wetting/ trashed bed /STOPBANG.

The process of sleep is complex and inclusive. By this it is meant that there are many interrelated systems from brain activity change from the wakened state, for example the role of the Amygdala, which I look upon as the brain's receptionist. Like all receptionists, it goes 'home' in the evenings. The cortical activity levels do alter regionally during sleep, as Andrea Goldstein notes;

Rapidly emerging evidence continues to describe an intimate and causal relationship between sleep and emotional brain function. These findings are mirrored by longstanding clinical observations demonstrating that nearly all mood and anxiety disorders co-occur with one or more sleep abnormalities.

The Role of Sleep in Emotional Brain Function Andrea N. Goldstein and Matthew P. Walker *Annu Rev Clin Psychol.* 2014; 10: 679–708. PMID: 24499013

There is now enough good research indicating the various brain regions and linked responses where sleep quality is impaired and the clinical pictures. [16, 90-97]. These issues however don't start in adults, they are seen in babies, infants, pre-schoolers and juveniles (64-66, 98, 99). Those babies who snore, mouth-breathe and hold their breath – do this until age 4 have irreversible socialising and learning difficulties. These patterns are reported into early school as disruptive and ADHD level activity. A parallel study of new-borns tracked

'forever' with annual results published on NY Times, shows consistently pre-schoolers who have these traits tend to become obese by 4 yo, eventually reaching teens via lower decile classes – disruptive poor learners- and more angry than 'controls' as teenagers. (*Am Acad Pediatrics*)

My understanding and research shows the impairment of midface (airway) growth is the major but far from the only influence and as the OPERA study shows about 1:3 have jaw joint pain (TMD) which currently is understood to rival tooth-aches as chief complaint at American ED's. James Mold et al[67] shows that 90% of people visiting a primary care clinician have a sleep-related problem, yet 80% of these show no recorded evidence that this was considered, recognised or included as a treatment factor.

Typical medications

These are good indicators of an underlying probably undiagnosed OSA/SDB issue. It is these health issues that influence many psychiatric and socialising problems.

Classic examples:-

- Anti-hypertensives [86, 88, 89, 100, 101]
- Anti-reflux[102-104]
- Sleeping tablets [105-107]
- Anti-anxiety tablets Fluoxetine[108-115]
- Diabetic medication – Metformin.

Typically when asked patients deny ever discussing snoring, poor sleep or common manifestations of either obstructive sleep apnoea or Central Sleep Apnoea.

Watch out for SSRI

SSRI drugs, often critical in reducing depressive symptoms have a side effect known since their release. That is generating severe tooth clenching and grinding. Sometimes enough to damage teeth and generate vast afferent nociceptive signalling from the TM Joint.

Case example:- woman 37 yo., presented with moderate/severe tooth-ache. Indicated an unblemished premolar. In fact in her whole life she only ever had a single filling. A very small Well established filling, probably placed in early teens. As no other cause was noted a small xray was attempted inside her mouth. Placing the film towards the back and against the soft/

hard palate border triggered severe, eye-watering gagging. As she was upset a larger extra-oral film was taken.

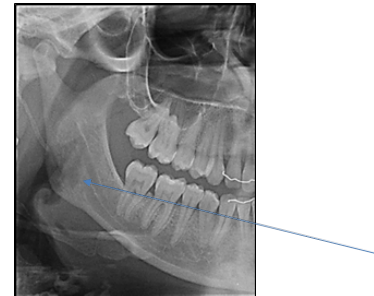
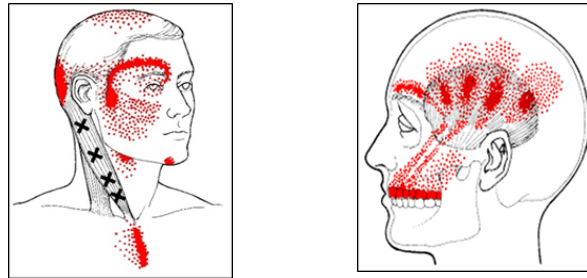


This did show a small decay where the upper wisdom tooth impacted the distal (back) of the standing tooth. Note the wires cemented following orthodontics placed to ensure the teeth don't move. This is a red-flag. Next traditional testing of thermal responses with cold; tapping to check for irritation around the tooth-root tip a frequent happening when inflammatory chemicals leak out of the tooth into the bone, all proved null. There was no tooth-based cause. On reflection simple palpation of the bellies of the chewing muscles proved positive. Palpation of the muscles inside the mouth close to the jaw joint proved exquisitely painful as did palpation of the jaw joint itself. A diagnostic drop of local anaesthetic into the upper head of the Medial Pterygoid capsule proved diagnostic with immediate overall pain relief. Then the confirmation was that of her overall medical state, that of depression. This is well known to be a factor of fragmented sleep. Moreover the medication of choice is one that was found soon after its commercial launch to stimulate bruxing as it is now known is a common side effect of many drugs, specifically SSRI group.

Incredulity followed and the woman was offended by the revelation that her pain was the result of depression – as she interpreted the explanation - thinking she was being written off as simply mentally unsound.

In fact there are a number of clues such as the low probability of tooth-ache. The indicated tooth being far from the 'decayed' tooth. A pattern of trigger points in her head-posturing muscles and chewing muscles as shown by Dr. Janet Travell

There are also clues in the strong gagging – a protective reaction to intruding into the airway glottis, it is far narrower than ideal oropharyngeal dimensions.

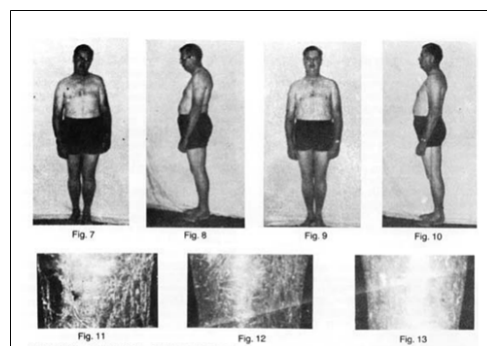


Cases: Vicar /Fonder. Dr. Al Fonder DDS found that many patients had both TMJ and poor quality sleep. He was not aware of the precise causes, but clinically both noted and respected this.

He was part of a study group in Chicago in the 1960's to 1980. This was a surprising group where the MD/GP had been awarded the Nobel Prize for medicine and an engineer was a member.

Fonder was referred a patient, who had severe headaches and psoriasis. Fonder noted a narrow mouth, his lower teeth touching the palatal mucosa and a pattern of tooth wear that indicated mandibular protrusion and bruxing. Fonder added a small amount to the vertical of the back teeth using amalgam. The patient called in early having noted that the day the bite height was increased the 11 year itch of psoriasis reduced greatly and he feared the nerves in his legs were damaged.

Headaches resolved as did the psoriasis over a longer period.



SCOLIOSIS AND PSORIASIS- 39 YEARS OLD CLERGYMAN He stood on one foot and the toes of the other foot. The psoriasis was of twenty years' duration, for

which he had sought treatment from every major medical center in the USA, to no avail. He was on allergy pills around the clock and was hospitalized every spring and fall with pneumonia or near pneumonia. Two days after molar support was provided, he stood normally. The itching of the legs stopped the first day. He discontinued the allergy pills and went five years without a cold. After six weeks the skin of the legs appeared normal.

https://www.holisticdentist.com/wp-content/uploads/2015/06/Dental-Distress-Syndrome_-Fonder.pdf

The postural adaptation is clearly visible, but usually ignored, but the brain and muscles are maintaining this position 24/7.

Case 2 Fonder. #100 Male labourer age 48. A patient in his third mental institution undergone multiple shock treatments, condition still declined. Planning to have another shock treatment his wife objected, his brother, a psychologist, who had been pressing for 'dental treatment' as he had seen numerous excellent outcomes, insisted and the man was referred to Dr. Fonder. Six days after replacement of extracted lower molars 'normal' circulation had been restored to the head and extremities, the patient was discharged and was driven by his wife to Dr. Fonder. After that the weekly visits were made by the patient alone.

In house cases:-

Skye, Ben, Daniel.

Skye. Woman 30+ suffered a whiplash when she was fallen upon by a 140 kg woman in a sudden bus –stopping incident. Multiple and non-beneficial therapies were offered, including two vertebral end-capping procedures– placement of metal caps on the top/bottom of the vertebral bodies. There was no remission of the intense migraine and Tension Headaches. Seemingly out of desperation a 'diagnostic' local anaesthetic was placed in the Levator Scapulae muscle which did reduce the overall pain. The muscle was sectioned. This made no impact on the head/neck pain but added loss of shoulder control, dropping the shoulder and stretching the Brachial Plexus leading to loss of fine motor control in the dominant hand. From the dental perspective this was resulted in an abrupt rise in tooth decay as she could not hold a tooth brush, but also she reported her life revolved around three daily opiate medications. When children rose and on return from school and before bed. The benefits of the opiates waned and dosage increased. She presented with unsightly front teeth – heavily decayed, afraid she may never get employment. Harking back to the engineer of Fonder's study group, Charles Gussay had

worked out the mechanics and forces of opening and closing the jaw. The forces were translated into the upper spine were his findings, so this was suspected as the maintainer of the pain. This was also a reflection of an impaired pharyngeal airway – half full of tongue. A night splint designed to maintain a patent airway and to limit/prevent the mandible from swinging sideways and permitting compression of the TMJ/s, was accompanied by a clip-on set of teeth that increased the overall height of the mouth and also offered a little more tongue space. She failed to attend a followup appointment 3 days later but did attend a week later looking very angry. The anger was a mistranslation rather than anger it was bewilderment. 'I can't believe this, I have no pain'. This was the end of three years of high/intolerable levels of pain. Oddly she became one of a small group of patients who had unexpected complete resolution within hours, which was a happy outcome, but when pain did not recur after abandoning both day and night splints and almost inevitably recreating the pathology again, pain still has not returned.

Ben; Male 40+ following a long session having a difficult root filling Ben started getting intractable migraine. These were there 24/7 for more than a year. Repeated attempts of diagnoses were little more than educated guesses and all proved fruitless. After a AND finding of a cranial MRI his doctor felt there was little left but to refer to our clinic. In this case, loss of back teeth saw both a loss of physical vertical stops and resultant compression of both TMJ's. These were arguably irritated in the long open-wide dental session. Coupled with a poor airway, both were addressed with appropriate removable oral appliances. Ben was followed up the following day, angry and perplexed he complained of having tinnitus, which he had before treatment and many other issues. When asked about the pain levels, he said they were gone – 'it's like witchcraft, all too easy, won't come back or pay your bill. These outbursts were understandable given the destruction wrought over the past year.

Daniel; Male early 30's. Presented from doctor. Complaining of Right face pain, an issue noted at low levels during teens. When the pain increased in late 20's over a two year period, he went to his dentist who noted a gap had developed between the upper back teeth. A probable food trap these can be painful. No food was noted and the soft tissues normal. A large filling was placed to fill the gap, but recurrence saw an even larger filling. The tooth died and was root filled. The tooth split and was extracted and eventually replaced with an implant. None

of these 'dental' interventions altered either the quality or quantum of pain, which by now was intolerable and intrusive. He had lost his family who could not cope with his moods, and his business was also failing. The diagnosis was one of TMD due to compression of the jaw joint and probably maintained during sleep with clenching.

He reported scepticism was his outlook, but that he did note a reduction of pain on first wearing the oral splints. Within 2 weeks he returned for followup and reported smiling for the first time in years. He had no pain. He then revealed that he saved up what had been ineffective opiates and other analgesics and selected a favourite bottle of alcohol and had set a date, for a week after his first visit. He could see no way forwards, and could not cope with the prospect of living a life with pain at this level. Resolution was complete and on healing, withdrawal of splint therapy has not seen a return of symptoms.

SUMMARY

Health professionals are in reality trapped in their educational paradigm. The reality is given the high demands of clinical and licencing continued education is usually confined to the home discipline. But there are a few bright lights who are reflective and look outside their home disciplines. The old chestnut story relating to treatment of head-pain being different dependent upon which floor you get out on in the hospital is well known and understood. This chapter is designed not so much as a diatribe of neurology but of clinical and worldly application. In these cases it is repeated that more treatment is not ok, it requires a thinking application and a humility that only comes from frustrating failures. It is not by the successes that we learn. Perhaps the saddest comment was the report of Darryl, who after a short period of illicit drug-taking noted he had ground off ¼ of his teeth. Remarkably he figured out his own recovery and made it. He was offered in exchange for him being the model in a teaching session, low cost porcelain crowns. He accepted and as groups of crowns were placed, he developed pain in his tongue and floor of the mouth. Then in his throat – his neck – his arms and upper back. He lost his job as he could neither raise his arms nor work restoring antique furniture. He lost both the ability to drive and his car. Desperate he pleaded with and later complained about the pain formally. He was told by the investigator that the dentist fixed his teeth – not his neck or back. Perhaps he might go back to the dentist and maybe cry in front of him and get help.

While this forced Darryl close to suicide, it is also an insight into how we all approach things we don't understand. This maybe 'criminal' and contrary to ethical process, but it is common and widely noted.

I offer a suggestion. When things don't stack up, first look inwardly, not in condemnation, but in quiet scrutiny. This is how people who have become my mentors have had to move forwards and can give considerable personal growth and help to others. It's by sharing that we learn.

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