The comfortable dental injection technique

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Introduction

A survey carried out by Dr Joe Bulger in Toronto, Canada, in 2010 listed the top ten reasons why patients do not attend the dentist; these included poor service, off-putting sounds and smells, the lectures, bad memories and the drill. The top two reasons for nonattendance, however, were No 2: 'the pain' and No 1: 'the needle'.[1]

An article printed in Dentistry Today 2004 by Jennifer de St Georges outlined the top reasons why patients do return to see their dentist. Unsurprisingly, the top two reasons why patients continue to attend a particular dentist are the same as before: No 2: 'he/she does not hurt'; and No 1: 'a painless injection'.[2]

It makes sense, therefore, that when we develop a technique of giving a local anaesthetic that is not only completely comfortable but almost virtually undetectable, by learning and practising this technique with your own patients, you will develop an unrivalled reputation for being caring, gentle and skilful. Learning this technique will not only impact your reputation; it will also increase patient retention, recommendation and ultimately your profits.

The aim of this article is to familiarise the reader with certain aspects of the most up to date technique in providing modern dental anaesthesia - 'The Comfortable Dental Injection Technique' (CDIT). This has been developed over the last twenty-five years of being a dental surgeon and practice owner, with extensive training in hypnotherapy, neuro-linguistic programming (NLP) and human needs psychology; then combining this knowledge and experience with that of key opinion leaders from dental hospitals and universities.

To be fully understood, an appreciation of the physiology and psychology of pain is beneficial, the reasons to choose the best equipment, materials, the simple CDIT protocol and the use of hypnotic (suggestive) language. In this article, I will discuss the influence of language on the effectiveness of your injection technique and the perceptions of your patient. Further information about the other aspects can be found via the Septodont training courses and website.

Pain and its modulation

The way we experience pain is complex. Whilst I cannot go into an in-depth explanation about the physiology and psychology of pain in this short article, it is important to be aware of several aspects of both in order to understand why the CDIT works.

Our current theory of pain – The Gate Theory – stems from the neuroscientists Melzack and Wall in 1965, in which they attempted to explain how pain signals may be modulated.[3] From your undergraduate training, you will remember that there are several different types of nerve fibres. They can be thin, thick, myelinated and nonmyelinated.

A-alpha fibres are thick and myelinated and transmit signals of motor origin very quickly (touch, pressure, vibration). C-fibres, on the other hand, are thin and nonmyelinated and transmit signals of nociception (pain, temperature, chemical) very slowly in comparison to A-alpha.

The Gate Theory proposes that only one signal can pass through the dorsal horn of the spinal cord, where there is a synapse, enabling us to 'close the gate' to pain if we stimulate the faster signal of touch, vibration or pressure sensation. You already know this because we have all been in situations where we have hurt ourselves or others have, accidentally and our immediate response is to rub the painful area. This 'rubbing' sensation stimulates the faster fibres of touch, thus closing the 'gate' to pain. In practical terms, if we rub the area we are about to inject, stimulating A-alpha fibres we can close the gate to pain.

Equally, whilst we can modify the pain signal from the source 'upwards' to the cerebral cortex, we can also modify the pain signal from higher centres downwards. 'Top down' modification is best explained by an example of a footballer who breaks his leg during a

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game but is so focused on playing that it's only after the game that he feels the pain or discovers the break.

Top down modification can dial the pain up or down! Memories can dial it up but our behaviour and our language can dramatically impact the perceived signal either way. For example, if we as Dentists are relaxed, in rapport and are careful with our words, we can easily dial down our patient's perception of pain. Conversely, if we are careless, rushed or even stressed, we can influence our patient to perceive pain, even if we aren't causing it.

Whilst words are just a small percentage of our communication (approximately 7%), our language and its effect on the subconscious mind is huge. In fact, one of the first things I learned about the language of was that our subconscious mind cannot process a negative. If I were to say to you, 'Don't think of a dental chair', you have to imagine a dental chair in order NOT to think of a dental chair. Even for a brief, fleeting moment, you will have an internal representation (thought) of a dental chair.

When my daughter was young, and I hadn't learnt this, I would say things like, 'Careful, don't spill the juice' or, 'Careful, don't trip'. Whilst I had a positive intent for her to keep the juice in the glass and for her to stay upright and not hurt her knees, I was increasing the likelihood of her spilling her juice or even falling over.

Why? Because for her to understand and process what 'not spilling her drink' meant, she had to create a picture, sound or movie in her head (an internal representation) of spilling the drink. It was almost like a mini rehearsal for the main event that invariably resulted in me on my hands and knees mopping up juice and chastising her. Wow, what a situation; the poor child gets told off for doing exactly what I had, unintentionally, told her to do.

So, once I learnt this nugget of information, I would make every effort to catch myself from using a negative phrase and change it to a positive one before I spoke. For example, 'Please, carry your glass really carefully'. I had the same positive intent and dramatically increased the likelihood of her keeping the liquid in the glass, because she had to create an 'internal representation' of carrying the glass carefully rather than spilling it. Make sense?

So, how can this be useful in our lives as dentists to benefit our patients? Let's look at some of the things that you and your team say to patients every day that might be creating an Internal Representation of something that is negative. Firstly, a disclaimer; I know that you have a positive intent for your patients and with some practise and effort you will be able to influence them even better than you already do.

In my dental practice to reassure our patients, we used to say things like:

- 'It's ok, it won't hurt'
- 'There won't be any pain'
- 'Don't be scared'
- 'Don't worry'
- 'This won't be uncomfortable'
- 'I don't want you to be nervous'

What internal representations do you think these statements created in the minds of our patients? Now, clearly, we had a positive intent of reassuring our patients and wanting them to be and feel comfortable, yet we were increasing the anxiety of our patients, creating pictures, sounds and images in their minds of pain, worry, nervousness and hurt.

The CDIT process in brief

1. Use positive language ALL THE TIME with your patients: 'I am going to make sure everything we do today is completely comfortable'.
2. The most important thing today is that we make sure that you are completely comfortable. In order to make sure you are comfortable, I am going to gently rub in a magic numbing cream that will numb your gum which means that whilst I look after you, everything is gentle and completely comfortable.'
3. Applying topical: 'So I'm gently rubbing in the numbing cream which will make your gum feel completely comfortable and numb, so that when I gently press on your gum in a minute, (with the needle) it's a gentle sensation and touch.'
4. Be aware of the direction of the bevel of your needle. Have it parallel to the mucosal surface so that you can engage the needle very superficially whilst rubbing the area with a cotton bud, thus invoking the gate theory.
5. Inject just a few drops very, very slowly: 'You will feel me gently touch your gum'. (Whilst continuing to rub/ agitate the area).
6. 'That's right, very good (positive language). Now you will begin to feel that the area is becoming more and more comfortably numb,' (stroking the lip/cheek with your finger as a marker – a hypnotic suggestion).
7. Wait 20/30 secs and then proceed to administer the required amount of articaine for you to treat the tooth at a pace of 1ml a minute whilst progressing the needle (this time bevel to bone) to the desired location. Drip drip drip!!!!
8. Ask your patient for a score out of 10 for how comfortable that was. Often, they will ask you what you just did!! A score of less than 10 is feedback for you to adapt your technique.

References

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