

# The Language of Touch

*With Simeon Niel Asher*

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## **TRANSCRIPT**

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Simeon:

The idea here is that we're going to do a series of lectures and we're going to cover the body and we're going to pick out some, some topics that are clinically relevant. I think that's really important. So we're going to look at cervicogenic headaches whiplash. So we're going to cover all the way through the body. But I thought we'd start today by sort of getting some kind of foundation and I thought we'd talk about the language of touch. Being that we're in this Corona pause as I call it, I miss touch. I'm sure a lot of my colleagues miss touch and I think it's important to come back to a sense of why we touch and then also to integrate it into the ideas of painful touch, therapeutic touch and trigger points, which is what we're going to be studying along the way on our journey that we are doing together.

Steven:

This is a bit of a passion for you, isn't it? So why is that?

Simeon:

Well, I think I got into trigger points very early on. Second year of college at the BSO. And the therapeutic effect of being able to manipulate trigger points in the right way are incredible. It's a shortcut. It allows me to achieve a lot of stuff in a session. Patients understand it, it's got an evidence base to it, but more than that by reproducing someone's pain it has profound effects. And I think one of the things about trigger points that it's got, and I'm really kind of going through it pretty heavily over the years, is that as an osteopath as a hands-on therapist, I thought I knew what trigger points were. But you know, as time goes on, the rabbit hole deepens and we're learning more and more. It's a hugely

useful paradigm. Allows me to talk to medical doctors. I teach a lot of doctors now. I run courses in hospitals and it allows me to teach, to treat physios and chiropractors.

Steven:

I'm sure you won't mind. I've put a slide up of your book on the screen behind me. I would have held up my own copy, but mine isn't the third edition and this is the third edition. I've got a picture of here. So I mean that's a pretty big seller. That book isn't it? I mean it's a very popular book, probably the Bible on trigger points.

Simeon:

It's the Harry Potter of the trigger point. I just actually handed in my fourth edition coming out next year. I've improved it, added a few things. I was approached to write a book 12 years ago and the whole trigger point movement has changed and improved and grown. And I've had great privilege over the years to work with a few mentors. Currently working very, very closely with Dr Robert Gerwin who has co-authored hundreds of papers on trigger point therapy. Hopefully we're bringing him along here. I've just written a piece of software with him perhaps we'll talk about later on.

Steven:

I should have mentioned to people before we started that you've got quite a few slides to support the presentation. The ones that we'll be showing, either behind me or on full screen for the audience are not the complete slide deck, but that complete slide deck will be available for people to download from the recordings page once we post that later in the day. So I'm just trying to reassure the viewers that they shouldn't worry if they can't catch everything on the slides because they'll be able to download much more information afterwards.

Simeon:

Thank you. So look, I guess I'll just talk briefly about my trigger point journey. As I said, I got into it in 1990. I remember the first time I used some deep stroking massage on a patient in clinic I was very excited and they came back a week later, black and blue. The whole ITB from thigh to knee. I just wanted to die. It was so horrible. And there I learned a big lesson, which is a lot of it's about intention. So when we're touching someone, it's about the depth and the velocity that we touch someone. It's about visualizing the tissues beneath the skin. If you're pushing and doing deep stroking massage and not feeling, you're not going to get this therapeutic outcome. So it's really intelligent trigger point work. It's not just about holding something and pushing. It's about the dance, about feeling and, actually intention. So understanding the anatomy.

Simeon:

Now, one of the things that's great about what we do is that I teach a lot of doctors and their skills for palpation are not great and their anatomy is not great. And this is what we live and breathe. So being able to sort of visualize the muscle beneath you, being able to play with it and then look at this dynamic tension within the body and almost functional releases, we're doing these trigger points. It's just incredible stuff. Anyways, I just thought we'd explore touch today and look at perhaps some trigger points as well and how they integrate the whole trigger point model and uses with therapeutic pain if you like.

Steven:

So you were going to talk about an age of disembodiment, if I remember correctly.

Simeon:

Perfect. So look, I was reading this great book, by the way, by Susie Orbach, she wrote a book called *Fat is a Female Issue*, back in the 60s, very famous psychoanalyst, psychotherapist. And she wrote a book, fascinating book about bodies, and she said that we're in a kind of age of disembodiment. So one of the reasons I thought this was an interesting topic, often the fact that we are yearning to touch again is that we're in this modern society where touch has become a taboo and also touch, there's a kind of sense of disembodiment. She said that, and this is a quote from the book, she says, you know, now that we no longer use our bodies to make things, we make our bodies instead and that we create the body from a kind of mind. We grade the body from mind. So this whole cartesian, I think therefore I am thing is, is very prescient.

Simeon:

I don't know if you see it therapeutically in your clinic, but there are people that are obsessed with body. You know, we have this whole body obsession that's going on now. And there's a kind of disembodiment that's going on. Now she explores it much more. For example, in computers you see males playing as females in computer games, females playing as males and avatars and this whole kind of gender dysmorphia or there's a whole kind of sense of creating yourself these days, which is a kind of a modern phenomenon that perhaps wasn't there before. A kind of plasticity. So the other thing that she, in the book, she had a lot of very interesting stories and one of them, I'll just tell you quickly, was that a guy that had polio envy and for many years, he wanted to lose his lower leg.

Simeon:

He didn't, wouldn't feel complete until he'd had his leg cut off and he tried for ages, he went to his doctor and he asked the doctor to cut his leg off and everyone said, no, no, it's a perfectly healthy leg Sir. Why would you want to do that? And he tried and tried and eventually he had an accident and he had to have an amputation of his leg. And only then he felt complete. And when they went back and questioned him afterwards, it turns out that his neighbour as a child was a polio victim that wore a leg iron. And he had tremendous jealousy of this and he didn't feel that he was complete until he had his functioning as his own body. So the whole way that we embody is something kind of different. And moving on from that, I think in terms of our world, the world of sort of therapy, there's another big issue that's going on now about sort of therapeutic touch.

Simeon:

Gerwin, who is the head of pain medicine at John Hopkins and an incredible neurologist, he would say that trigger points have a role to play in about 90% of all physical medicine, so 90%. And yet on the other hand you've got physios that talk about trigger points as palpation illusion. A particular physio, I'm sure some of you have heard of, Meakins, who says manual therapy offers low value treatment and with a high value placebo content and manual therapy is harmful and/or disempowers patients. And certainly I belong to a few Facebook groups, I'm sure you do, that evidence-based osteopathy groups and I think the role of touch is being somehow taken away from us and questioned. So that's another reason I thought we talk about it.

Steven:

I guess Simeon, we need to point out that when you said what you did just now, we are not saying that all physiotherapists are anti trigger points. It's just that as in every professional body, there are some who want to stick their head above the parapet and criticize various other elements of therapy.

Simeon:

Well, you know, it's a big topic. You know, there are, there are some people that are very, very passionate anti trigger points, a small number, but there are, I mean there's Quinter and co who publish out in Australia that, you know, there's a kind of posse of people. But I think the overwhelming evidence in terms of what I experienced, what you experienced as therapists is that they have a role to play. But I think then the question is treating pain with pain, therapeutic pain. Because, you know, when I work with trigger points, they can be exquisitely painful. So then the question is, if we're going to..

Steven:

I still haven't forgiven you for poking that trigger point in my infraspinatus.

Simeon:

I remember it. You got my fingerprint.

Simeon:

Maybe we'll just dive into it then. So I wanted to start by looking at the language of touch, and I wanted to say that I sort of came to this idea because when I moved country, I moved about 12 years ago to a different country, I couldn't speak the language particularly well. And yet, I was able to treat people and it was very much a thought that first of all, people immediately trust you if you have sort of confident hands. Just putting your hands on someone is an amazing sort of therapeutic thing. But being able to reproduce their symptoms, we didn't need language, it didn't need communication. So it seems to me that touches its own language. It's its own form of pre verbal communication. And I think that's very much true.

Simeon:

I remember, you know, professors of mine at college saying you know that the human body reacts at 20 meters per square second. It's like a horse will know if the rider is not confident and it will jostle around and it will make problems. And a horse will know immediately if the driver's confident. So again, so I think there's very much this idea, this notion that touch itself is pre-verbal. So I talk about the four P's of touch, if you like, which are, it's powerful. It's pre-verbal. It's primal, or primates, which we're going to look at now. And it's profound and I think touch can be profound. And I think going back to this, this idea of disembodiment, I think touch is a yearning and instinct. Certainly I'm sure many of you are feeling that as therapists now as a yearning to touch people, that's part of our DNA, why we want to become hands on manual therapists and that, that somehow it's very affirming to patients and, and there's deep reason why it's affirming and we're going to explore some of that now, socially.

Simeon:

And also I think it brings out our sense of self so it reinforces our sense of self. But I think it's very easy to get lost and, and bringing something back into the body or embodying someone allows him to connect back to that. And perhaps in some ways that's what pain is about. Pain is like an alarm bell saying come back to you, you know come back to you. So that's some of the things. But I think today what's happened is that certainly in modern medicine is that it's been sanitized of its touch. Touch is of low

value. It's of low value therapeutically. It's more medical tests are moving away from touch. It doesn't have the evidence base. And you know, we're, we're tending to put people on machines and, and give them lots of tests. So it's been outsourced and I would say that as technology has sort of moved on, there's been a lots of embodiment.

Simeon:

So certainly doctors don't really touch anymore. And of course there's taboos around touch. You know, it's very powerful taboos around touch. And the reason is, and I think for many reasons we have become the high priests of touch. That's part of our job because you know, the big elephant in the room, it is sexualized or sensual touch. And I think that people are very scared of touch. And of course, even within our therapeutic framework, there's a whole thing that we don't talk about this whole sensory sexual touch thing. So it's the elephant in the room and I think because of that it's powerful. It is pre verbal and I think we've become, as I said, like the police to touch.

Steven:

You say that Simeon, but of course I suspect that there's quite a few in particularly the chiropractic and osteopathic professionals who are even now they are nervous about touch because the most common complaints that go before the professional conduct committees are about consent. And the number of those, a large number of those are about what is perceived to be inappropriate touch by patients. And I would like to think that a lot of those are mistaken perceptions by the patient, but of course the fact that feedback is making people worried, isn't it about touching patients

Simeon:

100% absolutely. There's a taboo around touch. And I think, you know, we have to be certainly explicit in our professionalism around touch. But to ignore that, that there is this other side of it is to ignore that, as I said, the elephant in the room. But of course you know, that there are boundaries that are there. But I think for that reason perhaps conscious has become sort of removed from medicine. You know, doctors are afraid to touch. So there is a gray area, but it's so vital. It's so important and I think we're going to explore some of it now. So I was going to talk about where touch happens. That's only if you've got that slight, yeah, perfect. What I wanted to say is this, is that, you know, thinking about it. When we think about our five senses, let's take for example, hearing, you know, we think about the industries that have come up around healing and we think of Mozart, Puff Daddy and we think of all this kind of industries that are kind of hearing industries, but yet what is hearing? Hearing is a mechanical process of sound waves which are transferred by the three bones in the ear into electronic signals and the ear processes that, and then that's how we hear. So in terms of sense the sense, but if we think about the industry around hearing and we think about, you know, Abbey road and the Beatles and this whole massive iTunes, these whole industries of music.

Simeon:

And I just want you to sort of think about that for a second, cause we can come down to smell. So again, smell is a combination of course. Olfaction is in a human is very minimal compared to that of other animals like a dog. I mean a dog can smell one part per million in terms of smells. But you know, in terms, again, in hearing, you know, our range of hearing is thus not like a bat. We shouldn't really talk about bats, but the sense of smell again, it's a sector of stimulation. And yet you think that the industries around smell, perfume and all of these industries that have come up around smell. Again, taste, you know, taste and smell to get a pass. We think about that finding restaurants and the different types of

cuisine and sushi and burgers and all of these senses and of course, but what is it? It's a sweet, salty, sour. Are blended together in terms of their sensory input and the brain interprets that and then of course, adds other elements to it from the limbic system.

Steven:

I got a couple of observations or questions for you Simeon if I can interrupt us briefly? One's from some woman called Claire Short. So she used to do voluntary work treating people who had been tortured and she was often asked whether she had to be more gentle with those patients. Her answer was that it wasn't about being gentle, it was about intention and type of touch. And her patients knew that if she did any deep work or trigger point work, that it was painful, but the touch was still therapeutic, not done with aggression. And despite all they've been through, they still knew that difference. And the other thing is from Robin. Robin asks how you deal with consent issues when you're treating pain with pain?

Simeon:

Okay, well then so, so I think you have to be explicit. You have to say, what I normally do is I sit someone's neck down, I tell them what I think is wrong. And then I say to him, look, I'm going to, and again, it's key. I usually say to them, I'm going to press on, or I show them actually on my software, usually what I can this wrong. They'd come in with pain in the wrist but actually I think it's coming from your armpit subscapularis and I explain the anatomy. And then I actually press it and I hold it and by reproducing their pain therapeutically, there's no need for language, it's pre-verbal. So I think you have to be explicit and you have to explain it and you have to tell them that, you know, this might be painful. But the other thing is that not to sort of tense up around it, just to relax into it because you know, pain is a nuance thing as well.

Simeon:

I'm going to get back to vision cause I haven't finished about Hollywood yet. Rods and cones, very much kind of, sort of only rods and cones. And yet we think about the industry that's built up around vision. Hollywood, Bollywood, you know, all of these visual industries. Advertising. And then we come on to touch. Right now 90% of the skin, 90% of the body is touch. And yet let's think about the industries of touch. You know, they're all sort of massage and osteopathy and physiotherapy they're not, we're not, rationalised like some of these other great industries that come around. The great cuisine houses of France, the great perfumeries of America. So as an industry, I think we're in some disarray and I think it's because of these taboos around touch and I think it's because of these sensitivities around touch and pain and touch. So I just think it's worth exploring here. And just acknowledging that this is where we are at the moment. And I think trigger points have a huge role to play in whole industry of touch as well.

Simeon:

So touch is a landscape, so I've put this slide up there. Thanks for including it. I know you didn't want to because when we think about touch, what is it really. It is a type of input in the same way smell, hearing, taste. You know, when we bring it down to really what it is, it's a stimulation of mechanoreceptors and it's about touch has different profiles so it can have deep touch, painful touch, superficial touch, gentle touch. And I think how we blend those together therapeutically is exactly how powerful our therapy can be. Certainly when I do painful touch, I often find myself sort of stroking another area of the body or patting it or holding it. I'm going back to that question before. In her book Bodies by Susie Orbach, she actually talks about something, I don't know if I should say.

Simeon:

I'll talk about it anyway. What's really amazing was that people that get into sadomasochism, they often find that they were as a child, they were, had some kind of therapy or some kind of cancer treatment. Anyway, they were hospitalized and the doctors would be performing painful things on them in a loving way. And this, this morphed their kind of perception of pain and touch and love and everything got all mixed up as a child. So, you know, things are really powerful things. So, so coming back to this idea of a landscape that when we are doing painful touch, we have to think about putting in some gentle touch as well. And certainly as I became more competent as an osteopath or as a therapist, I started to, and I had less time per patient because it got busy and busy. I used to think to myself, what do I want to achieve today?

Simeon:

You know, I want to do X, Y, and Z. I don't want a patient to turn too much. How am I going to stimulate this receptive profile to achieve what I want to achieve therapeutically? And now, as you know, with my technique, NAT, I work with algorithms, very much about touch algorithms. So coming onto the next slide is about very much about that. It's what, really what is touch? Touch is this vocabulary, this blend or inter blend of different receptors, big pain, superficial pain, vibration, temperature. And again, what we can do is we can use these creatively, we can use these therapeutically. But what we don't want to sometimes do is to overload the body. And parts of what I find therapeutically is to give the body just the right amount of neural input from the skin, from the senses.

Simeon:

Enough to improve our sense of self. Almost like sometimes I think of it like this, in terms of talking therapy. I might just say my problem to my talking therapists and all they're going to do is listen and then give it back to me. But somehow that, that interaction has been enough for me to integrate it and process it. And then the same way I think it as touch therapists, people agreeing instead pain with not playing with it, we're giving it back to them and saying, now that you do that, you, you move on. And I think that that's, that's very much kind of fits into this idea of it's this accountability. So let's see where we are. Perfect. Okay. But looking at the science now of touch and I think this was fascinating. This was a paper written by a guy called Dunbar.

Simeon:

And he wrote this. Dunbar was amazing. He actually lived with apes, ape communities, primates. Several times he would as part of his research live with these ape communities and he found something incredibly important. And he wrote this paper, which I'm happy to give you the link to. The social world of touch in humans and primates, behavioral function and neuro biological mechanisms. Sounds a bit dry. I mean absolutely relevant and absolutely incredible research and in his paper I think it kind of answers a lot of the quandries we're thinking about here because he said this, he said that touch, a lot of these primate communities spend up to 20% of their waking hour what's called allogrooming or grooming of others. Social grooming. So not grooming themselves. We think of it perhaps they're in there and they're picking their fleas and picking each other's fleas.

Simeon:

There are very, very few fleas. In fact, fleas only happen in zoos. Generally in the wild, but very few ticks. So what are they doing for this 20%. Not only he said that, he said that the amount of food needed to fund 20% of your waking hour is enormous. So there's something else happening. The touch is actually

performing some other function and it becomes incredibly powerful when even when we actually look at what he said. Basically as he said, grooming is a widespread activity throughout the animal kingdom and it's not for hygiene. So what is it for? Well he says, as he said, up to 20% of the awakening time and energy is used and touch and in primates including humans, social grooming or allogrooming, or grooming of others plays a particularly important role in social bonding, which in turn has a major impact on the individual's lifetime and productive fitness.

Simeon:

So perhaps touch has got this other role and I think this other hugely important role, this social role, which is why I was pleased with touch. More is upon us perhaps than we might even think. It enhances commitment to relationships. What they found in terms of what we know about alphas and males, but in terms of relationships, the more people touched each other, the more bonding that that relationship was. In terms of famine, in terms of regression, in terms of other tribes coming in, they wouldn't care off more with each other with touch. And the other things that he found were really fascinating that there's a neuropharmacy of opioids that are the least during touch. Now these touch mechanisms are a pinch and a twist. And a stroke is very, very very formalized. So their touch is painful. And he said, actually in his paper it was like a rough massage and that got me thinking, it's kind of like coming to see me for treatment.

Steven:

I was just thinking, actually there's a, there's a parallel in my social life and a lot of peoples in the, you know, you've got a dog or a cat, you can't avoid stroking it. And there's perhaps that's a substitute for the fact that you can't go around stroking other people very freely in your social life and you can your partner. But the dog seems to enjoy it. I seem to enjoy it.

Steven:

I know I've got an important question for you before I let you go on if that's all right. Two people, Sue and Bob have both said in slightly different words. If touch is so important, what do you think the impact of us being now told that we should do social distancing and telehealth appointments, how's that going to affect our work? People's health, more importantly,

Simeon:

Let me open that up to you. I mean that's, that's why I felt compelled to, partly to do this, start with this workshop. You know, I think touch has an enormous social, you know, our instincts, our yearnings when a baby cries is to pick it up and touch it. You know, our yearning. I remember at college I couldn't help it, I had a compulsion towards touch. I remember there was a patient came in head to foot burns, third degree burns and no one wants to treat this patient. I mean it really was pretty difficult to look at, but I just found myself, yearning, I had to put my hands on him. I just had to, there was like, it's a compulsion and I think we feel, I feel compelled to touch, I'm sure loads or you feel compelled to touch

Steven:

Are you seeing are you seeing some professions which would traditionally be thought of as touching professionals and I guess you work more with physiotherapists than I do. Are you seeing more of them moving away from touch at the moment? You mentioned doctors, but I mean that's, that's true.

Simeon:

Sure. There's a whole movement in physiotherapy of non-touch physio, you know, I mean a movement. Huge movement. I'm sure you're people will tell you here a non-touch physio is a huge movement in physiotherapy because the evidence base, funny. I had a beautiful phrase before from one of my medical doctor colleagues. He said, you know, there's evidence based medicine and then there's medical based evidence. I think that's a beautiful way of putting it. So I think the medical based evidence of touch is huge. Maybe the evidence base of it is difficult. But again, you know, perception.

Steven:

Do you think that's driven because I mean, people say let's go for the evidence based, but are they saying that you mustn't do anything outside that because they're worried about prosecution?

Simeon:

I think it's a huge, it plays a role. It plays a role. You know, it plays a role. But we can't be defensive because once we start again, they are digging into the, the value of touch, the therapeutic value of touch, the social role of touch and how it actually works. We can see the, you know, it can't be ignored, you know, it's the biggest organ in the body. You know, 90% of the senses come through the skin, but it has to be acknowledged and it has to be dealt with professionally and we have to be open about what we're doing. But certainly it's, like I said, it's, it's got a lot of taboos around it. And I think that there are, there's a movement in physical therapy that's very much sort of anti touch. But touch has to be done right. You know, that's the other thing. Should I carry on a little bit.

Simeon:

Okay. So again establishing community and social dominance, you know, so he found that their social dominance with very much touch related. It brings me to a story actually. I don't know if I should say, you know, I was on tour with a certain singer.

Steven:

I think you're allowed to mention him.

Simeon:

So I was on tour with George Michael right, and I was, you know, being flown around with him.

Simeon:

I think you were a backup singer, weren't you?

Simeon:

All right, well that's a different story. That's for the pub after. One day, hopefully again. But I remember he had 134 people working on this tour and I was like, no one right. And I was a bit resentful because, you know, I would normally spend my day treating 20 people and now I was just waiting out for him. And he says to me after one performance, he said, you know, what do you think about all this, what do you really think is going on? I said to him, you know, seems to me that you are the alpha male, you know, because everyone was sort of underneath him. He was like the apex of this whole kind of 134 pyramid. And I said, and I am the groomer here to sooth you by picking your fleas. Moving on. So grooming partnerships tend to..

Steven:

We won't ask if you found any Simeon.

Simeon:

Well, what was interesting was he actually said he went on the next show thinking he was a monkey, which was quite funny. Grooming partnerships tend to be consistent as well as persistent through time. Grooming partnerships are intensely social relationships and buffer against stress. That's really important. Buffer against stress. We're nearly there. But what was really interesting was that there were two mechanisms that he identified with his this paper. One is the idea of neuropeptides being the basis of social bonding and that neuropeptides are released during touch relationships. And the other is the touch pathways.

Simeon:

So if we come onto the next slide, this was really yeah, so there were two elements to touch social grooming. One form is called soft touch. And that was a gentler sweeping movement and one was a twist and pinch, which was more rough. So he said, twist and pinch. So the soft touch arises from gentle, sweeping movements common during grooming may activate, that is really important, a class of slow unmyelinated CT afferent fibers, that project both to the limbic system and the orbital frontal cortex. Now it turns out that this is the brain's reward centers, including the sort of medial prefrontal cortex, orbitofrontal content cortex. So as there's grooming, there's a kind of afferent CT pathway that's rewarding us. So we feel pleasure. We're feeling this limbic system stimulation from touch. And he said this route is quite distinct from the more conventional somatosensory leads such as touch, pain, itch and heat that underpinned discriminative touch sensation and involve low threshold mechanoreceptors, skin, fast touch a-beta afferent. It says this CT pathway appears to give a different rise to a pleasant sensation of light touch when the skin is stroked lightly. So he's saying that actually there's a kind of reward of touch that's something social. It's something that's devoid from this kind of actual input of touch.

Simeon:

And he also said that grooming can be quite rough. And you said not like that of a, of a massage. It's painful, but then it becomes pleasant after a while. He said after they'd been sort of doing it for a while, it actually feels quite pleasant. So there's this kind of mechanism of soft touch and the painful touch. And it just struck me as very much part of what we're doing as touch therapists. So preverbal in terms of they can't communicate with each other with words, but certainly we can see that whole therapeutic, whole relationships and bonding that, whole, like it said, even their fertility is based around touching one another. So again, you know, to answer your question, to remove that from society I think is a hugely dramatic thing and we need to fight hard for it. So where does touch occur? Well it occurs here.

Steven:

Don't worry, I'll follow you.

Simeon:

Brilliant. Beautiful. Laurel and Hardy. So actually if we look at soft touch, it actually is in the lamina three of the spinal cord. Take a look at the spinal cord, we'll see where the lamina three is and that's where we think that soft touch mostly comes in. And then also lamina five. And the CT afferent going out to the limbic is a roundabout at lamina five. Now trigger points when they've studied this actually affects

lamina three, five and six. Lamina six is more about these spinal reflex loops and that's hugely important because using trigger points touch, painful touch actually affects the spinal reflex, the loops. So trigger points work on both the, when they studied this, both on laminae three, five and six, which are both activating the limbic system. They also, the reward system of the body, also the, the gentle system and also spinal reflex loops.

Simeon:

And that's hugely important. In fact, as I've come to study trigger points more and more, the spinal reflexes seem to be hugely important in terms of what we're doing therapeutically. So the other thing that he said was this, and I love this word, he talks about a neuro pharmacy. So touch produces a neuro pharmacy in the central nervous system. He says, look, central importance of oxytocin and endorphins is huge. Neuropeptide basis for social bonding on the neuro, endocrine pathways. Reduce stress, improve oxytocin, cortisol, endorphins, improving wellbeing. There's a connection to the menstrual cycle pair bonding, which is arginine vasopressin based and opioids. It says opioids are thought to arise from fibers that arise in the arcuate nucleus of the hypothalamus and then target other areas of the brain that express opiate receptors or OR's, including the brainstem, the basal ganglia, the cortical limbic regions as well as the hypothalamic nuclei where neurons and other potentially important neuropeptides exist. So this touch neuro pharmacy links is a huge cascade of anti-stress pro wellbeing hormones that are just distributed through the body. Okay. It makes sense, doesn't it? You know, it makes sense that there's something going on then when they're touching someone. Well, I just love the way when he was living with these apes and he had these incredible insights into how it works, and I think that tells us a lot about how we are as therapists, what we're doing when we touch people as well.

Steven:

Two things for you Simeon. Andrew has sent in an observation, he says it's all very interesting. He's read that there's evidence that sports teams that touch more often perform better and he's talking about things like high fives and so on. Of course, if you're a rugby player, it's a pass on the bottom rather than a high five but I don't know where that arises from.

Simeon:

Stop. Because there's an...Thank you very much. Andrew. You reminded me of something. So I did this beef since university and we did one of our research studies was this, it's amazing. We went to the library and we had this questionnaires of people that use the library and in it we hid one question. What do you think of the librarian? And we got the librarian to touch 50% of the people in the back of their hand when they were telling them, Oh, Love it's over there when you want to go to that thing. Sorry, I shouldn't be able to. Amazing librarians. But to touch the people on the back of their hand with half of them and not touch them with the other half. And we had such positive outcomes of the people that were touched compared to the ones that weren't touched. So, absolutely. Yeah. I mean it's, there's a value to it for sure.

Steven:

We've actually had a couple of physios just comment that they're all physios who still do treatment with touch involved. We aren't criticizing the physiotherapy professionals.

Simeon:

It's certainly not, but I'm sure they will acknowledge that there is a movement, you know, there's evidence based movement where they think that touch is good. You know, I love frozen shoulder syndrome and there was a paper by Diercks et al that said, you know, benign neglect, leaving them alone for 30 months is the best treatment. And so it's a look, there are a lot of ideas out there, but certainly to, to throw the baby in the bath water away seems ridiculous.

Steven:

Simeon someone's asked about this, so as part of the downloads, are you able to provide any references for the stuff that you're talking about? I can see that not all of it is in the slides. You mentioned one paper earlier on. I know.

Simeon:

Yeah, absolutely. I've got, there's a lot in that one paper, but yeah, absolutely, for sure. So we're going to summarize where we're up to now cause we're gonna move on to painful touch shortly. So, so touch is in your skin, but it's in the mind. Okay. Touch is a form of communication, preverbal. It can be soft or rough. It lowers stress, increases trust, it increases bonding and it introduces our sense of self through ourself. And that's really important just to think about. That in this disembodied age where we introduce them self to self through touch.

Steven:

Can I just ask Justin, can you bring this slide up please? Cause I quite like this one. Sorry you carry on Simeon.

Simeon:

So it also has affect on the peripheral nervous system, the PNS and the central nervous system in terms of neuro pharmacy. So when we are looking at painful touch and where we are looking now at therapeutic touch, let's look a little bit about more what we're doing in the context of what we're talking about. Context of sort of therapeutic touching in terms of pain. Because like I said at the beginning, one of the taboos around touch and perhaps some of the things that are difficult, especially for new practitioners, is how do you cause pain to people who are already in pain. And what is the purpose of that and how does it work? So here we're looking at some of the kind of mechanisms where pain goes. So I think that what's usually important about running a central and peripheral nervous system is maps.

Simeon:

So I think that the brain loves maps, absolutely loves maps. You know, we love maps as people, you know, we triangulate, we like to know where we are in space and time. And the body certainly it needs maps. The two maps that we're gonna explore today are the somatosensory or Penfields homunculus. And we're also gonna explore trigger point maps because trigger points are maps and we'll talk about those shortly. So in terms of our sense of self, I think it's worth saying that the way we see each other is not the way the brain sees us. And I think it's important for us to remember that again. In 1957, Penfield a neurobiologist produced this map. And what we can see is that the, this is a, the somata sensory homunculus. So there's a somatic motor one as well.

Simeon:

Certain areas are overrepresented or hugely represented in these maps.

Steven:

Can you bring this up Justin please.

Simeon:

Yeah, just follow. You've got to follow my logic. Just briefly. So in terms of if you imagine trigger points are about sort of paintings introducing ourself to ourself. We know for example, if you do needling techniques or techniques on the hands, they are incredibly painful. And that's because the, the density, the kind of receptive density area huge. And why? Because the brain dedicates so much of what is to be a human is about touching our environment and about reaching out and manipulating our environment. So there's a huge amount of brain dedicated to that. Again, a huge amount of brain dedicated to the mouth and the face and the lips and the tongue. So this is, this is kind of how our brain sees us, but the not so much in terms of the shoulder and areas like that.

Simeon:

Again, some of this has been looked at in Phantom pain, which I didn't have time to go through, but some fascinating stuff by Ramachandran who I'm sure you've heard. So the brain represents us in the somatosensory cortex, and then it has the somatomotor cortex. So what's happening is it's gathering the information from therapeutic touch, processing it centrally and even deeply, and then it puts a motor output. And that's really important, the motor output. I'm not sure what we've got here. Perfect. So once it's processed, it's taking the input, it has to make the decision. Now what decisions is it gonna make? Well, certainly if the body's in pain, it's gonna make some, some critical decisions, some sort of almost lifesaving decisions. So it initiates motor movement and it fires these messages to different areas of the body as we saw, they're not equally represented.

Simeon:

And actually what's very interesting, also is that these use different areas are even less represented in the brain. So what does the brain do? Well, let's look at pain and I'm going to just talk about pain in its most basic level because I know that pain, one of my friends at college, BSO, wrote a thousand page thesis on pain which she told me it didn't even scratch the surface. So I'm not going to go into the nuances of pain here, but so, so the brain likes these maps as homonculus, his sense of self. So the brain is constantly using this feedback to reestablish its sense of self. But when it goes wrong, there are other maps as well. So, and these are maps that were discovered by this guy Kalagrin in the 30s who injected saline insert trigger points.

Simeon:

And he mapped out, well actually it wasn't just saline, he actually did, sorry, saline with anesthetic and he mapped out on people where the patch of anaesthetisation was. Let's have this next slide. So we're gonna look at trigger points now. So the brain loves trigger points. I'm going to look at a trigger point map now I believe. That's the NYU, here, for subscapularis. Subscapularis. Now beautiful graphic taken from the new software. But look so in terms of two dimensions, here's a subscapularis. Now I want you to look at this really interesting thing. Look at the wrist and we see that subscapularis has a particular map that corresponds to dorsal wrist pain as well. Very interesting. So this is the pain map for subscapularis. Classic someone coming in with pain in the back of the wrist look at subscapularis. So the brain loves maps. And trigger points are all about maps. So I've got a little slide now, a little video that perhaps you'll play. This was taken from a little video from the software, right?

Steven:

It's just going to take a second to bring up.

Simeon:

Great. No problem. Thank you. So again, one of the things is that maps are not two dimensional like in my books. So one of the advantages of trigger points, you know, the three, look at them in 3-D. Being able to show the patient even though your problems, you know, coming from subscapularis, this is where I think it's coming from and we've added some animations into the software. It's a really good thing. Thank you.

Steven:

A lot of questions about where you buy your underpants

Simeon:

Thank you very much. We're going to actually make them in the next trade show and give them away. Would you like to win some underpants free with your subscription? So pain itself. So let's talk about pain. Like I said, my, my pain maps and the brain go together like peaches and cream and I think what I want to say about pain is this that in some ways, and I hope I'm not quoted out of context here, pain is a gift. In what ways is it a gift? Well, I think that it's a gift because again, it's first of all, it's a key motivator. Our patients wouldn't come to us if they weren't in pain. So pain is an alarm bell. It tells us that something's wrong and the localization, it tells us where it's wrong. So that gives us a huge amount of information as a therapist.

Simeon:

And then in terms of the structures, it allows us to sort of focus on the tissuescausing the structures. Of course you have to see globally as well. And I'm not suggesting in terms of the localization of pain, unless it's a referred pain map from trigger points and also knowing the daily pattern, knowing the chronicity, the history of it allows us to say, you know, is it a ligament? Is it an inflammatory problem? So, so pain itself is, is part of the nervous system's response to something being wrong. And it's an alarm bell. If you think about conditions where pain is gone, like Charcot joints, or sort of diabetic neuropathies and things like that. You know, people that have lost sensation in the feet will have fractures all over their feet because they haven't got a sense of self.

Simeon:

They've lost their awareness. So pain clearly has a huge function. So I'm thinking of this in context of therapeutic pain in terms of you know trigger point pain as well. So pain is the motivator. So what happens when we're in pain. There's several things happen. Protect and defend. So one of the things that brain, the body wants to do is it wants to shut down around pain, wants to lock things down. It wants to protect us. So one of the things, and like you know, I've been working with frozen shoulders since 1997 with my first clinical research at Addenbrookes between 2000 and . Might have been when I was teaching you actually in 2001 I had to run away to Cambridge to do that study. And the body goes into holding patterns around injury because it wants to switch off and it doesn't want us to use,uthe body efficiently and trigger points have a huge role to play. Go back one.

Steven:

I thought you wanted a holding pattern

Simeon:

Yeah, well nearly. We're going to go to a adapt. So it defends, it protects and defends and then it shuts down and then it has to adapt. So if it's in this holding pattern, if it's holding itself in this protective way, things aren't going to work the way they're perhaps designed to work. They're not going to work in the kind of homeostatic way because the body is already in a kind of protective shutdown

Steven:

Can I just interrupt for a second Simeon? I've been told that the sound is a bit hissy for the audience at the moment and that's not our fault. That's the fault of zoom. And I'm getting some horrible feedback on my end. I mean it's still bearable if with the audience, but we just need to point out that we'll try and fix it for next time. And obviously once we get back to our normal broadcast system, all these issues tend to go away. Can I ask you a couple of questions before you move on?

Simeon:

Please.

Simeon:

Steve Swift has said, how does this neurological response you described differ when we touch ourselves, for example, using a tennis ball as a trigger point aid for something as opposed to someone else applying that pressure?

Simeon:

I hear you. Interesting. Is it a hugely interesting question and again, you know, these, these are things I'm asking myself in the bath usually, but it's why if the body has everything it needs within it to fix itself, which is one of our primary kind of osteopathic principles, why would anyone come to me? What do they need to come to me? And it seems to me that there is a therapeutic value in taking your pain to someone else and having them play with it and give it back to you. Now I think that has a different profile. We set the profile because of all these limbic system connections and because of all these sort of and again, you know, perhaps some of the placebo is the more powerful the person you see, the more senior they are, the more sort of therapeutic outcomes. So, so I think, I think that there is a difference. And I guess a hugely interesting question. I'm going to leave that and I leave the question hanging, but it's a, an interesting question and there is a difference.

Simeon:

Should we come onto holding patterns? So what the shoulder's taught me is this, is that certainly in the frozen shoulders and here's where trigger points come into play is that the, the shoulder, those certainly into a protective lockdown and what we see there. And this, this idea came to me while I was flying in once the pilot said, you know, invades when you'd actually fly. I said, you know, we're locked in a holding pattern. And I thought, wow, that's kind of what happened around a shoulder problem in that the body's in dysfunction, it's in pain, it doesn't want, it wants to protect us, it wants to defend us. It doesn't want things to get worse, which is why it goes into sensitization and all these other sort of neuro modalities, neurological sort of things. And what you see is, and again, it's not just a human, I don't know if you see that dog there, it's this holding pattern.

Simeon:

It's this kind of lifting the leg? It's this flexion internal rotation of the arm. Now the holding patterns are there for all sorts of things. The hip. You think about what happens in an OA hip, someone lifts and twists the hip. I believe that these are primary sort of deep primary patterns that the body goes into around pain and that we have to acknowledge that when we're looking at how to release them from pain. So again, you go to the next slide. The, there's a much deeper wisdom that I've learned from looking at the shoulder. For example, what do we do when someone breaks their arm or dislocates their shoulder. Internal rotation and flexion. And again, this is from Siriac looked at this kind of decerebrated position. If you look at this default posture of the nervous system, it flex biceps and internally rotated arm. So these are primary sort of decerebrated patterns not just for humans. You see that in there across the animal kingdom. And when we're looking there trigger points have a huge role to play. But we have to think of it when we're treating someone who's in this kind of way of doing this function that we have to think of them differently to the normal anatomy and the normal sort of the anatophysiology that we work with studying in them, like the normal body.

Simeon:

So let's carry on. So in terms of painful touch, just to sort of summarize, it is a highly motivating significant pain itself. And to use pain to challenge someone with pain is going to really switch on a lot of things in that body. We're going to switch on a lot of again iendorphin releases are going to be working there. But what's most important is this, if you ever go to it, if you've had a good massage or bad massage even, and they're like four millimeters away from the problem and just say, please, please move.

Simeon:

You know, if you were just a few centimeters away, you'd be on it. There's this therapeutic pain, this idea. And again, you know, it's a taboo so I don't want to spend too much time. I know some of you they're laughing at home, but there is a, a thing about therapeutic pain where where when you, when you are able to reproduce that symptom and you've had it in yourself, like we're talking with the tennis ball. When you're on that exact spot and you can let go into it, there's something very magical about it. And that's the type of pain I'm talking about. I'm not talking about causing pain, for the sake of pain. I'm talking about this acknowledgment of self and I think these trigger points are woven into the rest of the nervous system. Perhaps if we get chance, we get to do an ape lecture on chaos and vitalism and trigger points as well.

Simeon:

So treating pain with pain, like I said, it's part of the language of the nervous system. If woven in, we're introducing itself to self, we're reconnecting to source. We're allowing the patient to reconnect back to themselves. And we're also going to shift some of those holding patterns which usually occur in the spinal cord and also a little bit higher up in terms of fear. So this is really where trigger points come into play and I'm going to sort of finish with this now if I may. So let's talk about trigger points themselves. Well in a survey done of the experts in the field of trigger points that was published in 2018 there were three things that they all said. They said, first of all, there's going to be a taut band. So there's a tight band and then there's a hyper sensitive spot within that tight band.

Simeon:

And also they refer pain. So these are the three things about a trigger point. A taut band, a tight band of muscle or myofascia. A hypersensitive spot or exquisitely sensitive spot. Sometimes we call it the wince sign because you press it and it's so painful. And then the idea of referred pain. Now what's really important with trigger points is holding them long enough to allow the body to let go. One of the great disasters, and in fact, one of the reasons like Bruce, is that patient was coming away too soon. And if you're going to do painful touch, you have to hold it and let the body change and adapt and compensate and let go because, and this is where some of the nuance and the subtleties are, you have to allow the body to acknowledge it and you come away too quickly you might do more harm than good.

Simeon:

So what I've put there is this idea of this tight band, neurology, the pain map, and also of course at the end I put some things from anatomy trains from Meyer's work about what seeing trigger points as part of a myofascial continuum. But of course if you go back to thinking about Penfield's homunculus, if you've got trigger points in finger muscles, of course the brain is going to see them so much bigger than trigger points in the shoulder because the way we're represented is different in different areas of the body. So I believe that trigger points warp sensory perception, and they don't just warp it in terms of that Penfield's map, they also warp it in terms of the autonomic responses. So there's more and more data now about the sympathetic nervous system being part of trigger point story, but also the parasympathetic nervous system.

Simeon:

You know, in my shoulder lecture, which sadly we had to postpone for now I'm going to be doing with you that we talk about the rumbling stomach when we were trying to release that holding pattern around subscapularis. And that's a parasympathetic response. So so trigger points do warp sensory perception. The other thing is they're incredibly powerful, exquisitely localized tender, and again, like I said, they connect us back to ourselves and they have these autonomic sort of effects so they can cause hypersalivation, epiphora increased reddening of the eye, conjunctivitis. All these are associated, for example, with the sternocleidomastoid trigger points. Dysautonomia, sort of balance issues, vertigo, you know, a lot of these things that are autonomic and I think more and more of us are feeling the autonomies are a big part of what we're doing. Nearly done.

Simeon:

So I'm going to nearly finish off which is this, which is the other thing about trigger points, is they have an effect on a peripherally and centrally in terms of when they're there, they, they increase what we call the nociceptive drive and they keep firing their signals into the spinal cord and they lower the threshold for pain. So what can happen is, and the reason it's part of the bodies protect and defense mechanism. By learning the threshold for pain, it means perhaps less painful stimuli might be more of a challenge. And that's part of the way the body is trying to protect us and defend us. The difference between peripheral and central is that central has obviously affects all the way up to the brain, but peripheral affects between two and five segments of the spinal cord, which means that any feedback coming from above or below the area of spinal reflex can also go into that kind of a nociceptive tribe. And after things have been in there for three to five months, six months plus, you'd get a central sensitization at a whole body becomes sensitized. So I think that was kind of it really

Steven:

I've got a few questions and we've got, we're about two minutes away from when we said we'd finish. So if I may, Martin says, is there a minimum time for trigger points to release?

Simeon:

It's a good question. Again, a lot of it is about that dance. A lot of it is, you know, and that's the skill of a, of a therapist is holding and waiting and feeling and letting go and there's a bit of an interplay. You let go a little bit and then you go back a little bit and keep sort of asking the body. I guess it's like a functional trigger point thing, but I'll tell you now there are cases of frozen shoulder where I might be on the long hair of bicep for 10 minutes.

Steven:

That's, yeah, so there's, I don't know whether you said yes, there is a minimum time. There's definitely no fixed time. Is there?

Simeon:

Minimum time is the time for the body to integrate it and to allow it to let go. That's the minimum time.

Steven:

Elizabeth has asked about the role of oxytocin.

Simeon:

Yeah. Well again, oxytocin is again, Elizabeth, I urge you to read this paper, which I'll give you the thing. It's the whole thing's about oxytocin, but oxytocin has a huge role in bonding and pairing and social touch and social. It's a huge role in that

Steven:

And different. So this is Elisabeth not Elizabeth says his trigger point then actually about releasing holding patterns overall.

Simeon:

So I would just, and again, I'm going to perhaps pause on this now, which is coming to the next lectures I'll be explaining all about it. We're going to be looking at the head and neck. We're going to be looking at this shoulder, upper arm. We're going to be exploring everything from a trigger point perspective and we're going to be working with one of the experts in the field, Dr Bob Gerwin who is kindly done these lectures with me, which is integrated into the software. And I'm going to be looking at all of that stuff. But yes, is the answer short answer.

Steven:

Okay. Simeon that's brilliant. We've come to the end of our time. Several people have said thank you for giving up your time for this and not only this, but of course the remaining six in this course that we're, we're doing with you. That was a bit of a taste that wasn't it. And for sort of the more practical stuff that's going to come later and

Simeon:

They're kind of a bit of a kind of theory

Steven:

And Simeon this series is not a plug for anything in particular, but I can see a wonderful logo on your clinic top there. Trigger points, three D is it? What's all that about?

Simeon:

Well, thank you for asking. Again it's not, it's not really what this is about, but I've been working really hard for the last few years on a really exciting project and I love trigger points. One of the things about having the book is that, and I was thinking about what I'm going to do for my next book, is that the maps are in two dimensions and I thought to myself, there's a way of making a 3-D map, maybe I've got some designers and I bought in 3-D models that as I was working on it I thought, wow, this is really good stuff and still kind of developed into something much bigger and now I've got a video channels and they're looking at lecture series all inside this app. If you did look at trigger point 3-D you'll find out more about it.

Steven:

I've had a very brief look at it myself and I haven't had time to look at it in depth though immediately it looks like a stunning resource and frankly I wouldn't have brought it up if I thought it was rubbish and not only do you get all that three D mapping but you got this three D model in a set of stunning underpants as well.