Balancing “hands-on” with “hands-off” physical therapy interventions for the treatment of central sensitization pain in osteoarthritis: example of communication between patient and therapist

Example of the communication between a musculoskeletal therapist applying pain neuroscience education with an elderly patient with chronic knee osteoarthritis-related pain and central sensitization as the main dominant pain mechanism. Note how the musculoskeletal therapist challenges the patient’s biomedical beliefs and presents the patient with a rationale for a combined application of manual therapy with pain neuroscience education.

- **Therapist (T):** ‘So, I would like to start this session asking you about the cause of the pain at your knee. Why do you think your knee is painful?’
- **Patient (P):** ‘I think my knee pain is provoked by the cartilage degeneration in my knee. My surgeon explained it to me in that way. I was able to see it myself when he showed me the X-ray: there was no space between the two bones of my knee! Sorry, I can’t remember the names of the bones, but what I could see is that they are rubbing together. That’s the reason of my pain.’
- **T:** ‘I totally understand you; it’s a logical way of thinking. But let me ask you one question. If your way of thinking was totally true, how would you then explain the fact that there are people with a lot of degeneration in their knees, a lot of friction, but without feeling any pain?’
P: ‘I don’t know… does that actually happen? Gosh, maybe not everyone feels pain in the same way? I remember that I heard or read something like that. There are persons with more or less tendency to feel pain, no?’

T: ‘That could be one of the reasons, yes. Each person experiences pain differently. But let me continue. If you were on the right way of thinking about your pain, then surgery, such as a total knee replacement, would be like a magic bullet for knee osteoarthritis. It should completely eliminate the knee pain. However, how would you then explain that some people continue experiencing pain even after surgery if it’s supposed that the source of pain has been eliminated?’

P: ‘Perhaps because the surgery is not well-performed or there is some kind of complication? A good friend of mine had to be operated three times for the same knee due to loosening of the prosthesis and later because of an infection. And even now he is still very much in pain! I cannot understand…’

T: ‘A failed surgery or complications post-surgery could explain that persistent pain, absolutely. But there are people who underwent surgery without complication and even so still have pain. So, there must be other factors explaining the pain, don’t you agree?’

P: ‘Yes, I suppose… but I don’t totally understand what you are trying to say. Do you mean that the surgeon’s opinion is not right, that my knee pain is not due to cartilage loss?’

T: ‘What I’m trying to say is that cartilage degeneration is in part responsible for your pain, but not the sole reason. That’s why we often find discordances between the degree of cartilage degeneration and the intensity of pain experienced, or why some people still feel pain even after surgery.’

P: ‘Ok, but then… where is my pain coming from if it is not coming from my knee? I’m now becoming a little bit confused.’

T: ‘That’s what we are going to
Explain to you in this session. What we actually know is that in a chronic pain situation like yours your nervous system, which works like an alarm system of your body, is not working in the normal way. Specifically, nerves transmitting the message of damage from your knee to higher regions of your body, like the brain, have become too sensitive or overactive. These nerves have been working for a long time, day after day, sending up danger messages of what was happening at your knee. Now, after so much time working in this way, your nerves have turned into a sensitized state. It is as if the volume button of your nervous system is turned up.

P: ‘And what can I or you do to get me better now? It doesn’t sound very good. You said sensi… what? Is there any cure for that?’

T: ‘Sensitization of your nerves. What we are going to do with treatment is to try to calm down this excess of sensitivity of your nervous system. To do that we will combine some educational sessions to explain in more detail the chronic pain you feel at your knee with a series of mobilizations applied to your knee. We currently know that both interventions are capable of decreasing the sensitivity of an overactive nervous system like yours so we will use them in combination. Are you happy with that?’

P: ‘Yes. Let’s try and see’.

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