

GUEST EDITORIAL – IS PAIN IN THE BRAIN?

When I first started to read about pain as an undergraduate student (30, yes 30, years ago!) most textbooks aimed at physiotherapists would address it in relation to specific anatomical sites and/or specific structures. The Cailliet series of books springs instantly to mind. The subliminal (and often not so subliminal) message that arose from these texts was that pain was generated in the joint/muscle/tendon etc and then travelled via ‘the pain pathway/s’ to the brain where it was perceived as an exact copy of what it started out as..... pain! This perspective had its origins in and loyalties to dualism. These ideas needed to be challenged and together with a group of the most motivated and talented people I have ever worked with, we attempted (largely within the auspices of the PPA and the odd Aussie or two) to do something about offering alternative paradigms.

What we attempted to convey was that pain is not a stimulus that travels up specific pathways and is then perceived in its original form, but rather that it is a perception and action that limits and protects us from actual or potential threat. This inevitably led to attention being shifted supraspinally to the brain. I remember the difficulty we had in getting ‘the peripheralists’ to make the “journey up the afferent neuron”, as Pat Wall encouraged us to.

Today most physiotherapists are aware of the non-peripheral origin of pain; the mantra ‘pain is in the brain’ is recited daily within the clinic. I accept my own role as a causative agent in its unceasing memetic power, but I am no longer comfortable with the premise on which the statement is made. Whilst I readily acknowledge that brains are necessary for the perception of pain, the important question is - *are they sufficient?*

Much of the teaching of leading figures within the field suggests that brains are sufficient for pain. If we accept this position we must understand the implications and accept the responsibility of conveying this information to patients, especially in light of the misunderstandings and emotions that often arise. The most frequent response encountered is anger and questions such as “are you saying I have a psychological problem?” or more simply put “are you saying I am crazy?”. This is not the intention clearly, but as with many situations, once the misperception has arisen it is hard to reverse!

Hardly a day goes by when there isn’t a reference to ‘you are your brain’ or ‘your brain is you’ both in the academic and lay press. I would argue that you are you and it is you that has a brain and, whilst your brain is necessary for you to be alive (and for the perception/experience of pain), it is not sufficient to be you! In addition, many pain experts are guilty

of fallacious statements such as “your brain decides” or “your brain thinks,” suggesting that brains are somehow distinct from you and capable of independent ‘thought’. This produces a position that the philosopher Andy Clark has termed ‘brain bound’. Unfortunately this has also had the effect to ‘re-structuralise’ pain i.e. it is anatomically located in the brain.

I believe that these brain bound perspectives have the potential to act as a barrier for individuals to engage in management programmes aiming to help them cope/alleviate/accept their pain. Consider, if I believe my brain is me and that my brain makes the decision to give me pain, then how will I be able to effectively gain control over it - my brain dictates to me not me to it. In essence this has created a new form of dualism where the brain is me, whilst the rest of my body is some other (type of) me! This has manifested in the development of management approaches aimed at either the physical and psychological aspects of pain and more latterly treatments aimed specifically at the ‘painful brain’.

I am surprised that these views have been so widely accepted by physiotherapists considering our backgrounds. Our understanding of physical rehabilitation places us in the perfect position to understand the unity of the human, that is a person within whom there is a brain but also a heart, lungs, muscles, tendons, nerves etc. In addition, we understand the manner in which we interact and shape our environments and importantly the life long consequences of not being able to! We are/should be a profession based on the three E’s of human existence - that is, we are embodied, embedded and enactive. This perspective sees the person for what they are, a sentient and salient agent that is both influenced by, and has an influence on their world and in so doing, perceives and acts as appropriately as possible to different situations and stimuli. These processes involve the whole person not just their brain.

I remain unconvinced that brains are sufficient for pain in the traditional sense, although readily accept that they are generative, that is capable of the formation of a ‘virtual copy’ of afferent inputs including noxious ones. It is wise however to remember that pain is not an afferent input. I believe that the only entity sufficient for the experience and perception of pain is the person. This simple yet vital construct demands that we influence the whole person and the world in which they live, not just their brain!

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