

How to deal with the Lion in the Room: Pain Neuroscience Education and Exercise

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Beth Scalone will be teaching on Pain Science in Washington DC (February 12th), Green Bay WI (March 15th), and Chicago IL (April 23rd). Go to www.atri.org for more information.

Pain is a common experience shared by all human beings. It's the body's natural alarm system which is produced by the brain and occurs in response to a perceived threat. This means that pain is not only normal, but necessary for survival. However, as most of us know, suffering from pain has the potential to be very disruptive to daily life. But what many don't realize is that pain, especially pain that persists for long periods of time, is extremely complex. Factors that impact pain include physiological stress (i.e. muscles, bones, ligaments, and nerves), emotional and psychological stress, sleep hygiene (i.e. amount of sleep, quality of sleep, and regularity of sleep pattern), past experiences with injuries or pain, and beliefs about pain and recovery. For this reason and many others, everyone experiences pain differently and will have different ways to manage pain for different situations.

Adriaan Louw, PT, PhD, CSMT has provided research and clinical applications to assist the clinician in helping their patients deal with pain, especially chronic pain. He has written several books including *Pain Neuroscience Education: teaching people about their pain*. In this book he helps us understand the consequences of chronic pain and why pain is so complex. Dr. Louw provides the 'lion in the room' analogy. Imagine you are sitting at an ATRI course and a male African lion jumps into the room.... Now, are you listening to what the instructor is saying or thinking about your posture? Not likely, adrenaline is released as your body prepares for 'fight or flight'. Now, say within 30 seconds the lion tamer arrives and safely removes the lion. Your body systems return to normal. However, what if the lion were to follow you around for weeks, maybe years. With this chronic threat the body replaces adrenaline with cortisol. Cortisol is your body's main stress hormone and works with your brain to control mood, motivation and fear. Overtime these areas in the brain become overactive, leading to the person having difficulty concentrating and develop other systemic issues. Why does the lion stick around? Fear and lack of understanding convinces the brain the "threat" is real and has not gone away.

Proactively the clinician can educate the client by answering the following questions that are most likely being asked or going through their head. This is one way to remove the 'lion' from the room.

Why do I hurt?

Will I ever get better?

How long will I have this pain?

What can I do to stop the pain?

Ways to help your clients with chronic pain take control back in their lives involve a variety of strategies.

1. Help them understand that pain does not always equal harm or tissue damage.
Using phrases like "you may be sore but your tissues are safe" when a client reports symptoms with exercise.
2. Teach relaxation techniques.

- One evidence-based strategy for calming your nervous system is using the 4-7-8 breathing technique which involves breathing in through the nose for 4 seconds, holding for 7 seconds, and exhaling through the mouth slowly for 8 seconds.
3. Keep them moving.
Research has shown that just a single bout of light aerobic exercise increases the production of the natural opioids produced by your body, called endogenous opioids. These are well-known to reduce anxiety, enhance mood, and aid in pain relief
 4. Educate on healthy sleeping habits.
Sleep is crucial for daily functioning and has been shown to have effects on how your body processes and perceives pain.

Aquatic therapy and exercise techniques provide multiple benefits for individuals with chronic pain. However, without education and a multi-disciplinary approach, success is often limited. Remembering the brain changes with chronic pain and it takes time to retrain the brain. Meaning results are not quick but education, empathy and encouragement from the therapist goes a long way to healing.

References

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