

Exercise and Pain

Evaluating the Biopsychosocial Model

When it comes to exercise and pain I think it is important that we first evaluate possible drivers of pain in our patients. I find it helps me to not only examine what is physically driving the patients pain but also what from their environment and social support system could be contributing to increased sensitization. This will help individualize our treatment as well as influence how much we can push into that painful movement.

Science of Exercise and Pain

We know from research that exercise has an effect on pain in the short term. This is called Exercise Induced Hypoalgesia. This phenomenon can be blunted in individuals with chronic pain so they may not get the short term benefits from exercises like someone who doesn't have chronic pain. However, we should educate them that as they continue to exercise, despite not having the short term benefits, in the long term their bodies will adapt and be able to tolerate more activity with less pain.

Poke the Bear

How much do we want to poke into pain? I referenced a Greg Lehman article where he discussed this exact concept about how much we should "Poke the Bear." The overarching theme of his blog was that we should poke the bear but we don't need to hug the bear. The amount of "poke" is dependent on multiple factors such as the acuity of the injury and if the patient has central sensitization.

Specificity of Exercise

When it comes to what exercises we should be performing. Many studies show that a lot of different treatments are effective. For example, MDT, core activation, walking or lifting heavy weights can all have an effect on pain. I believe what we can draw from these studies is that what we do is less important than what we do not do. For example, most patients will have certain movements that significantly worsens their pain. In these cases we should shift the focus from what they can't do and focus on the movements they are able to do with manageable symptoms. This along with our language will help to reduce fear avoidance behaviors until we are able to move into the previously painful activity.

Pain DOES NOT Always Equal Harm/Nociception is Normal

Pain is our body's warning bell telling us that there's something wrong. At times this means that our bodies have suffered an injury such as if we roll our ankle but in other cases pain is a normal experience and it does not mean that we have an actual injury. Examples of this could be if you sit for too long and your back starts to

hurt. We live in a society where the expectation is that we should exist without having any pain but this is a lofty and unrealistic expectation. If we educate our patients that there are differences between pain from an injury and everyday pain I think this will have a significant impact.

You Can Exercise Injured Tissue (Caveats)

We exercise injured tissue all the time. When someone pulls their hamstring we gradually start to load their hamstring to help it heal. There is more of a push in the medical field towards getting our patients into therapy sooner after surgery due to more research supporting active movement over rest. This being said we shouldn't be afraid to have a patient exercising even if they have an injury. That being said we still need to monitor symptoms and dose the exercises in an appropriate amount based on the acuity of the injury and severity. By doing this we may also be able to help reduce the fear of movement in some of our patients. A great blog that talks about this is by Greg Lehman and it is titled "running is the rehab." In this blog post he discusses how running can serve as the rehab for runners by just changing the dose.

References

1. Lehman, Greg. "Is it safe to do activities that are painful: exploring the expose versus protect debate." Reconciling Biomechanics with pain science. June 14th 2021.
<http://www.greglehman.ca/blog/2021/5/31/is-it-safe-to-do-activities-that-are-painful-exploring-the-expose-versus-protect-debate>.
2. Lehman, Greg. "Running is rehab: The doing is the fixing when it comes to recovery from injury and pain." Reconciling Biomechanics with pain science. August 23, 2019.
<http://www.greglehman.ca/blog/2019/8/15/running-is-rehab-the-doing-is-the-fixing-when-it-comes-to-running-injuries>