

## Managing Stress and Anxiety

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### How does stress and anxiety play a role with persistent pain?

When a patient comes to physical therapy it is often due to an issue that revolves around pain. Individuals that are suffering from persistent pain can also have increased stress and anxiety that may or may not be related to their condition. As a result of their painful state, they may develop fear avoidance behaviors, which can also lead them to feelings of depression. “Pain and depression are the most prevalent physical and psychological symptom-based disorders, respectively, and co-occur 30 to 50% of the time.”<sup>1</sup> Stress can be defined as anything that causes physical, emotional, or psychological strain on your body and requires attention or action.<sup>2</sup> Anxiety can be referred to the anticipation or fear of something that “might” happen in the future and can cause muscle tension and avoidance behaviors.<sup>3</sup> When an individual has persistent pain they may view exercise or movement as something that may cause further harm and view those activities as a stressor. The perception that movement might make their pain worse (catastrophizing) without the “coping resources is likely to evoke a physiologic stress response, manifesting as a feeling of uneasiness or impending doom, rumination or worry, and avoidance of stress-provoking stimuli.”<sup>4</sup>

Individuals with persistent pain can also suffer from a lack of sleep. “Insomnia is highly prevalent, closely related to the mechanism of central sensitization, characterized by low-grade neuroinflammation, and commonly associated with stress or anxiety; in addition, it often does not respond effectively to drug treatments.”<sup>5</sup> Central sensitization (CS) is a physiological and reversible mechanism associated with enhanced sensitivity and pain responses, but CS is not synonymous with psychological problems; however, psychological factors like depression and anxiety can directly influence the nervous system.<sup>6</sup> Lack of sleep can increase irritability and poor compliance. Psychological factors and emotional issues may amplify pain responses. Individuals that lack coping skills to manage things like stress, anxiety and insomnia may resort to increasing use of medications, aides, smoking, and alcohol.

### What can we do to help manage stress and anxiety when treating patients?

Educate your patients on how feelings of stress and anxiety can amplify their pain. Always look at the patient with a whole-body approach utilize good listening skills and convey empathy to implement trust with your patient. Offer education or resources to help them work on managing their stress and anxiety including but not limited to the following:

- Promote self-care
- Sleep hygiene
- Eating healthy
- Staying hydrated
- Staying physically active
- Utilize graded exposure to activity

- “Sore but safe” to help reduce fear avoidance
- Diaphragmatic breathing
- Practicing Mindfulness
- Time Management
- Therapeutic Neuroscience Education (TNE)
- Physical Therapy

Inform your patient that research has shown that exercise can reduce pain perception in addition to positively influencing effects on their psychological/mental health, such as improving their mood by reducing feelings of stress and depression, which often co-occur with persistent pain conditions.<sup>7,8</sup>

“Therapeutic Neuroscience Education (TNE) has been shown to be beneficial in changing a patient's cognition regarding their pain state, which may result in decrease fear, anxiety and catastrophization.”<sup>9</sup>

### **Why is it important?**

It is important to recognize the multi-faceted nature of persistent pain. Emotional factors such as stress, anxiety, and fear avoidance are often referred to as yellow flags.<sup>10</sup> A patient that has inadequate sleep every night will likely have difficulty in helping resolve their painful condition. Fear avoidance behaviors will only exacerbate their persistent pain. Sometimes a patient may need to understand that getting to 0/10 on a pain scale may not always be possible but managing the amplifiers of persistent pain is possible.

Chronic stress and anxiety that leads to depression can have serious consequences not only physically but emotionally; therefore, knowing the signs of uncontrolled depression (red flags) where a patient is unable to self-manage is vital. There may be instances where the patient is so depressed that they may need to be treated in conjunction with a psychologist or referred to their primary care physician to get professional help with their emotional well-being. As a clinician, it is important to collaborate and communicate with other health professionals in your community to help your patients get access to others that may be available to help. Being proactive to have these resources on hand will make you better prepared to manage these situations with understanding and recognizing red flags that need immediate attention or a referral.

### **The barriers and difficulties**

The holidays are among us, and this can be a stressful time for many individuals. At a time in the season where many of us find joy, others may be facing stress with not having loved ones to celebrate with, several celebratory gatherings thrown into an already busy schedule or financial concerns with the costs involved with gift giving. Maybe they have limited means to get adequate care (high deductibles, transportation issues or help at home) These issues can prove to be difficult and provoke additional stress and anxiety.

Another thing to consider is that working with individuals with persistent pain it can be mentally fatiguing to the provider. “Frequent exposure to patient distress is associated with a higher prevalence of clinician distress and burnout.”<sup>11</sup> As physical therapists our profession can be physically and emotionally demanding. It is important that we take time for our own self-care so that we can fully be available to treat our patients.

As far as exercise prescription what works for one patient may not be the same for another patient. “Exercise can also increase pain making participation in rehabilitation challenging for the person with pain”<sup>7</sup> One of the difficulties with utilizing exercise is there is “no consistency regarding intensity, duration, frequency or exercise type making interpretation difficult.”<sup>7</sup> Therefore, graded exposure with gradual progression may be utilized to gauge a patient’s response.

## Summary

Movement has been shown to help manage stress and anxiety. “Scientists have found that regular participation in aerobic exercise has been shown to decrease overall levels of tension, elevate and stabilize mood, improve sleep, and improve self-esteem. Even five minutes of aerobic exercise can stimulate anti-anxiety effects.”<sup>12</sup> Chronic stress and anxiety can lead a person to feel depressed “exercise-based interventions have been consistently demonstrated as having an antidepressant effect in people with depression.”<sup>13</sup>

Physical therapists should be cognizant of stressors that might trigger a flare-up in their patient. Utilize resources to help patients identify and manage their stress and anxiety which are factors that may be amplifying and exacerbating their persistent pain. Be aware of red flags that may need referral. According to the article by van Griensven et al. (2020), “we must be careful that the concept of central sensitization is not used interchangeably with psychological manifestations.”

Our APTA Michigan Pain SIG website has numerous resources to investigate which can be found here: <https://aptami.org/sigs/pain-sig-2/>

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