Improving Care for Individuals in Pain Through a Biopsychosocial View

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EDITORIAL

Everyone experiences pain to some degree during their life. It is a universal part of the human experience. Pain can be a critical protective mechanism, as it warns us to change behaviors and move away from danger. It can serve to protect an injured tissue from further damage. Pain can also be the source of suffering, and in cases of persistent pain, it can become the disease itself in the absence of other tissue involvement. The burden of pain on society is well documented and involves a significant economic impact.[1] The individual impacts of suffering and distress are unmistakable, and the effects of pain on the individual do not reside there alone. Interpersonal relationships are often strained and societal roles go unfulfilled. As healthcare providers, we have each personally seen the burden of pain shouldered by our patients and sometimes our friends, family, and co-workers. The individual and subjective, yet universal nature of pain are what make it particularly challenging to treat.

It has been a decade since the Institute of Medicine released the report *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*.[2] This report outlined the multiple challenges related to reducing the burden of pain in the United States. The challenges included rising rates of chronic pain, increased opioid use, and inadequate access to treatment for the most vulnerable patients.[2] Despite upward trends in the prevalence of pain, healthcare providers identified ongoing gaps in their education regarding the treatment of pain and a lack of confidence in their ability to care for individuals with more complex pain conditions. Due to these findings, the report called for a cultural transformation in the way the public and clinicians view pain and its treatment. The transformation called for a more thorough understanding of pain in to improve the prevention, assessment, and treatment of pain.[2] The public health burden of pain along with self-reports of inadequate preparedness by healthcare providers to treat pain motivated this recommendation.

The Institute of Medicine's report urged clinicians treating patients in pain to adopt a more complete view of the patient. This more complete view incorporates aspects of culture, beliefs, previous experiences, knowledge, expectations, and values.[2] This perspective aligns with a biopsychosocial model of pain, and it integrates the traditional biomedical model with its tissue pathology focus into a much broader view of the patient that includes psychosocial factors.[3] The biopsychosocial view emphasizes the role of psychological and social factors play combined with biological factors involved in the prevention, assessment, and treatment of pain. This is not a new perspective on how to be most effective at caring for people in pain, but it has been slow to be embraced into our biomedical culture. Engel

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made a case for the biomedical model being outdated and lacking validity in his 1960 paper stating, "[on outdated models,] a disease, then, has substantive qualities, and the patient can be cured if the diseased part is removed. That this often proves to be the case, as attested to by the successes of surgery, is actually not evidence for the validity of such a point of view."[4]

Traditional training for healthcare professionals has focused on a biomedical view of pain that would support the idea that a tissue-based pathology is the cause of pain and disability. Prevention, assessment, and treatment of pain within this biomedical view center on identifying the pathological tissue and promoting healing of the involved tissue. Limitations of the biomedical view include a poor ability to explain persistent pain and a lack of congruency with recent evidence highlighting the importance of psychosocial factors in pain and disability.[5] The biomedical view has been increasingly challenged as imaging has advanced and tends to find pathological tissues in the majority of people. Unhealthy tissues are present in people who have never had an injury or pain in the region of the findings.

This biomedical view is at odds with more complex pain presentations and the majority of individuals with persistent pain. Patients with persistent pain often present with minimal tissue based pathology or have long since healed from a tissue pathology but continue to experience pain and disability. Much of the focus of the biopsychosocial view has been on applying it to patients with persistent pain.[6] While this is valid, it does ignore the reality that all chronic pain begins as acute pain. Psychosocial factors that play a role in the persistence of pain are often present in acute pain presentations. Adopting a view of acute pain that incorporates psychological and social factors along with tissue based factors is the way to accepting this view for chronic pain. Many prognostic indicators for the progression of acute to chronic pain are psychological and social in nature.[7] After a whiplash injury, for example, perceived injustice and pain catastrophizing are predictive factors for poor recovery.[8] Patient expectations of recovery after an injury also play an important role in prognosis. For individuals with acute injuries similar in nature, those with higher expectations of recovery are less likely to develop persistent pain.[9] Pain-related fear of movement, a common maladaptive pain behavior after acute injury, was the single strongest contributing factor to disability in a group of patients with foot and ankle pathology.[10] We should not ignore that tissue pathologies more severe in nature take longer to heal, but the extent of injury alone is a poor predictor of who will transition to persistent pain and ongoing functional loss.[11,12] Only a more complete accounting of a patient's culture, beliefs, previous experiences, knowledge, expectations, and values can begin to account for this transition from acute pain to persistent pain.

So what does this biopsychosocial view of pain look like? It looks a lot like compassionate, patient-centered care. It involves a skilled interview that moves beyond the state of the tissue to understand contributing factors to the pain experience.[13] It involves a thorough physical examination that by itself can reduce pain and improve the patient's psychological orientation to treatment.[14] It also involves using standardized patient self-report questionnaires to help you get a more complete understanding of the multidimensional factors that contribute to your patient's pain experience.[15] It may involve referral or collaboration of an interprofessional or intraprofessional nature. Most of all it involves compassionate care and building a meaningful therapeutic alliance with your patient.[16] These are within the skill set of many healthcare providers, but those of us in rehabilitation have some specific advantages. We see patients repeatedly over an episode of care, which allows us to build a working relationship while we consistently reevaluate the patient's

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status. We spend a significant amount of training on developing our physical examination skills, and we tend to have more time with our patients than our physician colleagues.

The development of new imaging techniques, less-invasive surgeries, and novel pharmaceuticals as ways to treat pain have not moved the needle on the burden of pain in society. In some cases, as is often true for advanced imaging, these tools have resulted in increased downstream costs and maladaptive pain beliefs that result in harm to patients.[17] Advanced imaging and many novel interventions cling to the biomedical view and are lacking when it comes to addressing the psychosocial issues related to persistent pain. Effective treatment for persistent pain incorporates the biopsychosocial view through graded activity, addressing maladaptive behaviors, and educating patients with an emphasis on self-management and understanding the individual factors that influence their pain.[18,19] Embracing the biopsychosocial view is integral to enhancing the role athletic trainers and other healthcare providers play in reducing the burden of pain on society. I encourage you to take a moment and consider your view of pain. Reflect on what you are doing to incorporate psychological and social factors into how you prevent, assess, and treat pain. If we are going to be more effective in our role treating pain, it has to occur one person at a time through a view that incorporates psychosocial aspects into our patient management. It must involve a change in culture that is long overdue.

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