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Physical Therapists' Role in Solving the Opioid Epidemic

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In this Viewpoint, we highlight the challenges of the current opioid epidemic and outline strategies that the physical therapy profession may adopt to be part of the solution. These strategies include facilitating and providing patient education, early access to physical therapy services, and the promotion of health, wellness, and prevention.

The Problem

An estimated 116 million Americans suffer from chronic pain, at a cost of over $600 billion per year, or roughly $2000 per person per year.[2,3] One of the biggest predictors of chronic pain is the severity of acute pain.[4,31]

Appropriate management of acute pain is key to preventing the progression to persistent pain.[26] In a misguided attempt to manage acute pain, The Joint Commission in the United States created new pain management standards in 2001, which led to the adoption of pain as a "fifth vital sign."[37] These new standards required all health care providers to ask patients about their pain. The medical-industrial complex (private corporations engaged in the business of supplying health care products and services to patients for a profit),[44] specifically the pharmaceutical industry, capitalized on this and initiated a massive marketing and educational campaign designed to promote the use of opioid pain medications.[51] Prescription opioids are often used to relieve moderate to severe pain following a severe injury or surgery. In 1980, a 1-paragraph letter published in the *New England Journal of Medicine* fueled the opioid epidemic by stating, "Despite the widespread use of narcotic drugs in hospitals, the development of addiction is rare . . ."[42] In 1995, the US Food and Drug Administration approved OxyContin (Purdue Pharma LP, Stamford, CT) as a sustained-release opioid medication that was purported to have a lower potential for addiction and abuse due to its slow-release properties.[7] Pharmaceutical companies aggressively promoted and marketed these drugs, while reassuring the medical community that addiction to opioids was rare.[51] This led to a widespread increase in prescription of opioids to manage pain.[33] This increase in prescription rates led to easy availability, diversion, and misuse of these medications.[51] Unfortunately, the medical community failed to realize that these medications were highly addictive[7] and this has led to a public health crisis, with rampant opioid misuse and overdoses.

Vowles et al,[52] in a systematic review on the rates of opioid misuse, abuse, and addiction, defined addiction as a "pattern of continued use with experience of, or demonstrated potential for, harm." Opioid-related harm has reached epidemic levels.[38] The quantity of opioid prescriptions in the United States is staggering, with the Centers for Disease Control and Prevention (CDC) reporting 259 million prescriptions written in 2012, enough for every single American adult to have a bottle of pills.[41] In a survey of more than 51 000 civilian, noninstitutionalized American adults, more than one third reported prescription opioid use in 2015.[22] Based on this survey, the authors estimated that almost 92 million (37.8%) Americans used prescription opioids in 2015. The majority of the individuals (63.4%) took the opioids to relieve physical pain. In many cases, addiction starts with an opioid prescription for the treatment of pain. A 2005 analysis of 2797 heroin users reported that 75% of those

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who began abusing heroin indicated that their first opioid was a prescription drug.[7] It is estimated that 15 million people worldwide are addicted to opioids, and 69 000 people die from opioid overdose each year.[40] Death from opioid overdose in the United States increased almost 5-fold from 2001 to 2013.[40] The CDC estimates that the misuse of opioids is responsible for more than 1000 emergency department visits and 91 deaths every single day in the United States.[45]

A recent Gallup poll of 6200 Americans revealed that 78% of those surveyed would prefer drug-free pain management over opioids.[1] This poll explored Americans' perceptions about the opioid epidemic and treatments for pain. Almost one third of those polled viewed prescription opioid medications as "not very safe" or "not safe at all." The respondents cited multiple causes for the opioid problem.[1] Almost half (44%) of those surveyed saw the overprescription of opioids as a "crisis" or "very serious problem" in their area, and 55% placed significant blame on the pharmaceutical industry for encouraging and incentivizing physicians to prescribe opioids. Over half (53%) placed "a lot" of blame on physicians for overprescribing painkillers to their patients. While not assessed in this poll, the blame does not lie wholly with the pharmaceutical and health care industries. Misuse, abuse, and addiction to opioids can lead to drug-seeking behavior and "doctor shopping," and the street value of opioids has been estimated to be greater than that of marijuana and heroin.[27]

What Can Physical Therapists Do?

The results of the Gallup poll[1] signal a demand for a new health care strategy that includes more drug-free treatments for pain management. While the respondents believed that physical therapy was the safest and most effective drug-free pain management approach, those surveyed would seek care for neck or back pain from a physician (53%), chiropractor (28%), or massage therapist (7%) before seeking a physical therapist (6%).[1] Herein lies the problem. If physical therapists are viewed more favorably than other providers for safe and effective drug-free pain management, then why aren't individuals in pain seeking our care more frequently? Unfortunately, there is a lack of public awareness about what physical therapy has to offer.[24] As of 2015, Americans are able to seek some level of treatment from a licensed physical therapist in all 50 states without a prescription or referral from a physician. Many Americans are not aware that direct access to physical therapy services is available, and in many instances, third-party payers require referral for reimbursement. Also, in the United States, many insurers require a "copayment," which is a payment defined in an insurance policy and paid by an insured person each time a medical service is accessed. Copayments can run as high as $75 per physical therapy visit, even with health insurance. Finally, many health insurance plans discourage patient autonomy and health-seeking behavior, which means that there is a segment of the population that actually needs more care than they receive.[3,8] As physical therapists, it is important to educate our patients on the appropriate use of health care services.

Education Physical therapists need to improve society's knowledge and awareness of physical therapy as a nonpharmaceutical, nonsurgical alternative for the management of pain.[14,24] Confronting the chronic pain epidemic will require the physical therapy profession to step out of its comfort zone. As conscientious health care providers, we must clearly discuss the risks of opioid medications with our patients and their families. In a recent randomized clinical trial that included 240 patients with moderate to severe chronic back pain or hip or knee osteoarthritis pain, treatment with opioids was not superior to treatment with nonopioid medications for improving pain-related function, and had higher adverse medication-related symptoms over 12 months.[25] The CDC now recommends nonpharmaceutical approaches such as physical therapy over opioid medications for chronic pain.[14]

Physical therapists also need to expand their educational efforts to physicians and other referral sources who continue to overprescribe opioids and underprescribe physical therapy. Zheng et al[54] estimated that 170 million individuals consulted a primary care provider for low back pain between 1997 and 2010. Only 10% of these individuals received a referral for physical therapy services, while up to 45% received an opioid prescription. The most current clinical practice guidelines from the American College of Physicians recommend nonpharmacologic treatment approaches consisting of a variety of manual therapies, modalities, and exercise approaches for the treatment of acute, subacute, and chronic low back pain.[43] Physical therapists have a duty to discuss safe, evidence-based alternatives to opioids for managing pain.

Next, we must clearly communicate to patients why they hurt, from a modern pain science perspective.[29,35] Moseley[36] argued in 2003 that we need to reconceptualize the problem of chronic pain, because both patients and health care providers may have poor knowledge of currently accurate information about pain. We need to educate our patients that the biology of pain is never straightforward and that pain does not provide a window into the state of the tissues and is frequently modulated by psychosocial and somatic factors.[34] As pain becomes persistent, the relationship between the tissues and pain is less predictable, and pain becomes an output based on the brain's perception of tissue danger.[35] A recent systematic review by Louw et al[30] concluded that education about pain biology may reduce pain and disability, improve knowledge of pain, improve function and movement, reduce psychosocial factors, and minimize health care utilization in individuals with chronic musculoskeletal conditions. Finally, there is emerging evidence that educating our youth about pain, with a short 30-minute lecture, may change beliefs about pain

and, ultimately, how individuals respond to it.[28]

Promotion of Early Access to Physical Therapy Physical therapists need to educate referral sources that early access to physical therapy decreases costs and health care utilization, including advanced imaging, drugs, and surgery.[6,17-19] Thackeray et al[49] reported that referral to physical therapy and subsequent physical therapy participation were associated with reduced opioid prescriptions during follow-up in individuals with a new onset of low back pain. Virginia Mason Medical Center set up a low back pain clinic that offered same-day access for physical therapy, which led to faster recovery, lower costs, and less sick leave.[20] Direct access to physical therapy has been shown to reduce medical costs, lost time from work, number of visits per episode of care, and episodes of recurrence.[13,15,21,32,39]

Our profession needs to engage in dialog with small, medium, and large businesses in our community and point out that they are in the health care business. We need to explain that the current model of pain management is actively harming their employees, and we need to provide them alternative pathways to nonpharmacological, noninvasive, and nonsurgical care as the "first-line" treatment of pain. For example, the *New York Times* recently reported that Amazon, Berkshire Hathaway, and JPMorgan Chase will focus on an initiative for providing simplified, high-quality health care for their employees that is free from profit-making incentives and constraints.[53] Jamie Dimon of JPMorgan Chase stated, "The three of our companies have extraordinary resources, and our goal is to create solutions that benefit our U.S. employees, their families and, potentially, all Americans."[53] Opportunities such as this may allow physical therapists to leverage opportunities outside of the traditional health care system to provide early, cost-effective, first-line management of pain conditions.[6,16,18,39,48]

Prevention Physical therapists are in a unique position to promote innovative health, wellness, and prevention strategies and promote positive lifestyle changes.[11,12] Physical therapists possess advanced knowledge and strategies across key domains of prevention and health promotion, such as sleep,[46,47] physical activity,[12] and nutrition,[50] that have been shown to contribute to acute and chronic pain syndromes. Lifestyle changes and increased physical activity may lead to health benefits in those with chronic disease, may prevent or manage a number of health conditions, and may lead to an increased quality of life.[10,12] The American Physical Therapy Association advocates for an annual checkup to provide broad health screenings, to assess health status, and to identify potential health risks in their community.[2] The physical therapy profession can take a leading role in health care and health promotion, with the ultimate goal being a reduction in the need for more dangerous health interventions like opioid medications and surgery.[9] The knowledge and skill of physical therapists, combined with the amount of time we spend with patients, place our profession in an ideal position to not only pluck individuals from the river of chronic pain, but to also prevent them from falling into the river in the first place.

Conclusion

The persistent focus on pain by health care providers needs to be re-examined, as it is now well understood that pain is not a vital sign that can be measured objectively, like heart rate and blood pressure. Rather, pain is a multifactorial perception of the current state of physical and emotional well-being, and it can successfully be treated with drug-free management strategies.[5]

A century ago, our profession rallied together following the carnage of World War I. We saw that no matter how burned, broken, or shattered our patients were, there was within each individual the transformative power of the human spirit to overcome. It is now time for that same passion and belief to be reignited and focused on the physical therapist's role to heal a society in the midst of pain. People in pain are crying out for our help. It is time to be of some use.

Key Points

- It is estimated that 15 million people worldwide are addicted to opioids, and 69 000 people die from opioid overdose each year.
- Seventy-eight percent of Americans surveyed prefer drug-free pain management over opioids, and they view physical therapy as the safest and most effective alternative to drugs for the treatment of pain.
- A recent report by the CDC recommends nonpharmacological approaches, such as physical therapy, over opioid medications for chronic pain.
- Physical therapists can play a key role in treating as well as preventing chronic pain. ◉

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