Beyond Opioids: How Physical Therapy Can Transform Pain Management to Improve Health

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EXECUTIVE SUMMARY

The ongoing opioid crisis in the United States reflects the unintended consequences of a nationwide effort to help individuals control their pain. The health care system has, since the mid-1990s, employed an approach to pain management that focuses on the pharmacological masking of pain, rather than treating the actual cause(s) of the pain when its source can be identified. This strategy has resulted in a dramatic increase in opioid prescribing, causing widespread opioid misuse and addiction. It also has led, in the last few years, to a growing realization that current strategies for managing pain have to change—that opioid-centric solutions for dealing with pain at best mask patients' physical problems and delay or impede recovery and at worst may prove to be dangerous and even deadly. Moving forward, the health care system must reexamine its approach to pain, including how causal factors are identified, what tools or measures are used to quantify its impact, and how the approach to treatment is aligned with the patient's goals and values. Ensuring that patients and families are aware of and have access to various options for care is a significant step in addressing this complex issue. This report examines the opioid epidemic and the impact it has had on patients, their families, and the nation as a whole. It also affirms that physical therapist interventions are an essential component of the multidisciplinary undertaking that will be required to improve patient outcomes and alter the trajectory of this public health crisis.

INTRODUCTION

The presence of pain is one of the most common reasons people seek health care. National surveys have found that chronic pain—defined as pain lasting longer than 3 months—affects approximately 100 million American adults and that the economic costs attributable to such pain approach $600 billion annually.[1,2]

Pain has been described in the medical literature as a "uniquely individual and subjective experience" and "among the most controversial and complex" medical conditions to manage.[1,3] The source of pain for any individual can vary, whether it's an underlying illness such as heart disease or cancer, an injury experienced recently or long ago, or the lingering effects of a medical procedure. Regardless, a report on the subject by the US Department of Health and Human Services (HHS) notes that pain and its treatment "can be a lifelong challenge at the individual level and is a significant public health problem."[4] Moreover, there may not always be a peripheral source of persistent pain. Changes in the central nervous system perpetuate persistent pain, as in the case of individuals who have had both legs amputated feeling pain in their feet.

The treatment of pain, particularly chronic pain, often requires an integrated, multidisciplinary approach due to the many variables that may contribute to a patient's perception of pain and response to treatment. These variables can include the underlying cause(s) of the pain and the anticipated course of that condition, the available and accessible options for pain prevention and treatment, and the patient's personal goals, values, and expectations around health care. When individuals enter the health care system because of pain, their prospects for recovery—both immediate and long-term—are highly dependent on the system's response. Nationwide, HHS

reports, patients with pain "face many systemic hurdles to appropriate care." Evidence suggests, the department adds, "that wide variations in clinical practice, inadequate tailoring of pain therapies to individuals, and reliance on relatively ineffective and potentially high-risk treatments such as inappropriate prescribing of opioid analgesics…not only contribute to poor-quality care for people with pain, but also increase health care costs."[4]

That evidence, in fact, was the driving force behind recent recommendations by the US Centers for Disease Control and Prevention (CDC) in its "Guideline for Prescribing Opioids for Chronic Pain."[5] The CDC states that "Non-pharmacologic therapy and non-opioid pharmacologic therapy are preferred for chronic pain." The report expands on this thought, suggesting that "many non-pharmacologic therapies, including physical therapy…can ameliorate chronic pain."

Physical therapy is a dynamic profession with an established theoretical and scientific basis for therapeutic interventions capable of restoring, maintaining, and promoting optimal physical function. Physical therapists work both independently and as members of multidisciplinary health care teams to enhance the health, well-being, and quality of life of their patients, who present with a wide range of conditions including those that commonly cause pain. The CDC's recommendations point to "high-quality evidence" that treatments provided by physical therapists (PTs) are especially effective at reducing pain and improving function in cases of low back pain, fibromyalgia, and hip and knee osteoarthritis. Additionally, a number of studies[6-10] show the efficacy of physical therapist interventions in preventing, minimizing, and, in some cases, eliminating pain in patients postsurgery, in patients with cancer, and in other clinical scenarios.

Modern society too often puts a premium on quick-fix solutions to complex problems. This is evidenced by the prescription drug consumption in the United States. According to the CDC, approximately 9 out of every 10 Americans who are at least 60 years old say they have taken at least 1 prescription drug within the last month.[11] Children in the United States are 3 times more likely to be prescribed antidepressants as children in Europe are.[12] When it comes to pain and prescribing opioids, this desire for a quick fix not only can be counterproductive, it also can be dangerous. Often when individuals experience pain, nonopioid options are safer, more effective, and longer lasting.[10,13-15] Incorporating such options as standards of practice should be a central tenet in addressing the opioid crisis.

To be clear: opioids have a role in addressing pain. While we examine the use of opioids as an inappropriate first strategy for too many patients, we also must ensure that we do not limit access to opioids for patients for whom they are a needed component of care. Just as a failure to effectively manage and treat pain is not solved by prescribing too many pills, limiting access to medications for those who genuinely need and benefit from them is not a person-centric or appropriate course of action.

This report describes the opioid crisis and explains how PTs can contribute to its solution. It presents evidence documenting the effectiveness of physical therapist interventions in treating pain and preventing the onset of chronic pain, thus, quite likely, reducing opioid use. This report also lists recommendations to providers, payers, and others who are in a position to change the way the system works. It is time for health care to look beyond opioids—and to use proven non-pharmacological strategies, including physical therapist treatment, to transform pain management in an effort to improve the health of those at risk for developing or living with chronic pain.

THE OPIOID PROBLEM

When the CDC issued its guideline for prescribing opioids in 2016, it did so against the backdrop of a national crisis. That year alone, more than 42,000 people in the United States died from an opioid overdose, including more than 17,000 whose deaths were attributed to prescription opioid overdoses.[16] Deaths caused by overdose of prescription opioids have quadrupled over the past 15 years, noted CDC director Thomas Frieden in a *New England Journal of Medicine* article that accompanied the guideline's release. "We know of no other medication routinely used for a nonfatal condition that kills patients so frequently," he wrote.[17]

How the health care system arrived at this point—in which a class of drug once marketed as a way for patients to reclaim their lives from chronic pain was leading so many to an early death[18]—has been well documented in numerous publications. As the CDC itself has reported, the opioid overdose epidemic has progressed in 3 "waves":

1. **Increases in deaths involving prescription opioids starting in 1999**
2. **Increases in deaths involving heroin starting in 2010**
3. **Increases in deaths involving synthetic opioids since 2013[19]**

So what led to that first surge in deaths? The push to increase the use of prescription opioids began nearly 3 decades ago in response to the identification of an unmet need: Many people—young children, older adults, and minority populations in particular—were struggling with "undertreated" pain.[20] In fact, as far back as 1986, a statement by the National Institutes of Health Consensus Development Program noted that "a large number of persons experience pain," including acute pain and chronic malignant and nonmalignant pain. "Unfortunately," the statement concluded, "even when pain is reported and assessed, it may not necessarily be attended, monitored, treated, and satisfactorily managed."[21]

By the early 1990s the American Pain Society, a professional organization of scientists and clinicians, began to argue that a new approach to pain assessment and treatment was needed. In a 1990 editorial in the *Annals of Internal Medicine*, the society's president, Mitchell Max, MD, recommended that clinicians be held accountable for pain management and that quality assurance standards be created toward that end.[22,23] Following his lead, the following year the society created standards and established a system for rating pain intensity and relief. Eventually, in 1995, James Campbell, MD, who followed Max as president of the American Pain Society, suggested in a speech at the organization's annual meeting that pain should be evaluated as a "fifth vital sign." In 2001, the Joint Commission on Accreditation of Healthcare Organizations (now The Joint Commission) published new standards requiring that clinicians in hospitals and medical centers assess pain in all patients. Included among those standards were the following statements:

- "Patients have the right to appropriate assessment and management of pain."
- "Pain is assessed in all patients."

In rolling out the standards, The Joint Commission listed a number of ways that health care organizations might implement them, including considering pain to be "a 'fifth' vital sign in a hospital's assessment of patients. That is, pain intensity ratings were to be recorded during the admission assessment along with temperature, pulse, respiration, and blood pressure."[24,25]

As the conversation around pain assessment and management continued, the focus remained on pain as a primary condition rather than a consequence of disease or injury. This focus created a marketing opportunity for pharmaceutical companies to tout how their products could eliminate pain, and it led clinicians to increase their opioid prescribing in well-meaning attempts to provide rapid and long-term pain relief. A 2017 report by The Joint Commission noted, "Immediately after the release of the standards in 2001, some raised concerns that the standards could lead to inappropriate use of opioids." The report points out that opioid prescriptions "had been steadily increasing in the US for at least a decade" before the standards were published, climbing from 76 million in 1991 to 97 million in 1997 "likely due to advocacy work by pain experts." Between 1997 and 2013, opioid prescribing increased more rapidly, possibly as a result of the FDA's 1995 approval of Purdue Pharma's OxyContin, which contained the opioid oxycodone. The labeling the FDA approved for this sustained-release opioid claimed addiction to the drug was rare, and abuse was unlikely.[23] These same claims were used in marketing campaigns to physicians and in more than 40 all-expenses-paid national pain-management and speaker training conferences conducted by Purdue.[26]

What's the Risk?

Patients admitted to hospitals for opioid dependence or abuse are most likely to be white, male, ages 50-64, and Medicare beneficiaries with disabilities (*Health Affairs*. 2017;36[12]). According to the CDC, in addition to the risks of addiction, overdose, and death, side effects of opioid use include:

- tolerance
- physical dependence
- increased sensitivity to pain
- constipation
- nausea, vomiting, dry mouth
- confusion
- depression
- lowered testosterone levels
- itching, sweating

(Fact Sheet. Centers for Disease Control and Prevention and American Hospital Association. May 9, 2016)

The issue, as a 2003 report to Congress by the US General Accountability Office (GAO) spells out, was that many of these claims were misleading or false. Oxycodone, GAO noted, "is twice as potent as morphine, which may have made it an attractive target for misuse." OxyContin and other opioids, such as Vicodin and Percocet, were now prescribed so frequently (often through "pill mills"—pain management clinics that treated pain strictly with prescription opioids) that they became increasingly available for illicit purchase on the black market.[20] By 2011, the CDC revealed that prescription painkiller overdoses had hit "epidemic levels," killing more Americans than did heroin and cocaine combined.[27] Among the CDC's statistics:

- Sales of prescription painkillers to pharmacies and providers had increased 300% since 1999.
- In 2010, 12 million people ages 12 and older reported using prescription painkillers "non-medically."
- More than 40 people were dying each day from overdoses involving prescription opioids.

Media outlets reported that patients had begun crushing OxyContin tablets and either snorting the powder or dissolving it in water and then injecting it to negate the drug's slow-release properties.

From this point the situation only worsens: By 2013, a few years after an abuse-deterrent formulation of OxyContin was introduced that made it more difficult to snort or inject, studies were showing a correlation between the use of prescription opioids and heroin use.[28] "While efforts to reduce the availability of prescription opioid analgesics have begun to show success," noted a report by the National Institute on Drug Abuse, "the supply of heroin has been increasing." In 2014, more than 750,000 people in the United States were receiving substance-abuse treatment for prescription opioids, and the number of those getting treatment for heroin was twice what it has been in 2002.[29] In 2016, the latest year for which statistics are available, the CDC reported that more than 3 out of 5 drug overdoses involved an opioid, that overdose deaths from prescription opioids and heroin had increased 5-fold since 1999, and that 40% of the year's 42,000-plus opioid-related deaths overall were from prescription opioids.[30]

> *"A small (estimated at 4%) but growing percentage of persons who are addicted to prescription opioids transition to heroin, mainly because heroin is typically cheaper and in some instances easier to obtain than opioids."*
>
> —New England Journal of Medicine *2016;374:1253-1263*

Opioid dependence takes a toll not only on the user but upon their finances and their families. The national price tag is also significant. Prescription opioid misuse has been estimated to annually increase health care and substance abuse treatment costs by $29.4 billion, increase criminal justice costs by $7.8 billion, and reduce productivity among users who do not die of overdose by $20.8 billion. The total nonfatal cost of $58 billion divided by the 1.9 million individuals with a prescription opioid disorder in 2013 results in an average cost of approximately $30,000.[31] Today, with studies showing that health care costs associated with individuals who abuse opioids are significantly higher than those of individuals who do not, and with families and communities affected by the opioid crisis demanding an end to the epidemic, some providers are finally changing their approach to pain management.[32]

There is a role for opioids, but there also needs to be a focus on prevention of addiction. In addition, providers must understand—and convey to their patients—that the use of opioids comes with significant risks and that effective nonpharmacological solutions to pain management are available. The best way to prevent opioid abuse and addiction? Prevent exposure to opioids in the first place when they are not the optimal or appropriate choice for an individual patient.

PHYSICAL THERAPY CAN CONTRIBUTE TO THE SOLUTION

Ending the opioid epidemic will require collaboration among patients, families, providers, payers, and professionals across the continuum of health care settings, from primary care practices and pharmacies to hospitals and behavioral health facilities. Physical therapists, who engage in an examination process that focuses on not only the symptoms of pain but also the movement patterns that may be contributing to pain, must become central to this multidisciplinary strategy.

Who Are Physical Therapists?

Physical therapists are licensed clinical professionals who have completed an accredited physical therapist education program earning a doctor of physical therapy (DPT) degree and have passed a national licensure examination. As health care providers, PTs are experts in human movement who combine their extensive education, clinical experience, and the latest medical research to assess and

treat people of all ages and abilities to maximize their capacity for movement and, in doing so, help them improve or maintain their function and quality of life. Based on their judgments about diagnoses and prognoses, and based on each patient's personal goals, PTs design individualized plans of care, provide appropriate interventions, conduct reexaminations, and modify treatment as necessary to optimize patient outcomes. They also work closely with other professionals in the health care system, including physicians, nutritionists, exercise specialists, and behavioral health specialists, and refer their patients to other providers as indicated.

The Role of PTs in the Treatment of Pain and Prevention of Chronic Pain

Pain has been defined as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage."[33] Acute pain typically comes on suddenly as a result of a specific incident such as surgery, childbirth, a fracture, or trauma. Acute pain serves a useful biologic purpose and is self-limited. Chronic pain, on the other hand, serves no biologic purpose and has no recognizable endpoint. Chronic pain can be considered a disease state and can persist for months or years. When PTs work with patients in pain, they use tests and measures to determine the causes of that pain and to assess its intensity, quality, and temporal and physical characteristics. PTs also evaluate individuals for risk factors for pain to help prevent future pain issues. Some of these risk factors might include:

- **Disease history.** Conditions such as cardiovascular disease, osteoporosis, and rheumatologic disease can effect an individual's nociceptive experience.
- **Cognitive and psychological factors.** Disorders such as anxiety, depression, catastrophizing, fear, and post-traumatic stress disorder can be risk factors for the development of chronic pain.
- **Beliefs.** Negative beliefs surrounding one's condition can contribute to persistent pain and a belief that hurt equals harm.
- **Sedentary lifestyle.** There is a strong association between immobility and pain; people who are overweight or obese often have conditions such as low back pain, headaches, fibromyalgia, and pelvic pain.[34]

Once the contributors to a patient's pain are identified—and the patient's functional and mobility goals are clear—the PT designs an individualized treatment program combining the most appropriate techniques, including but not limited to exercise, manual therapy, and patient education to address the underlying problem(s).

- **Exercise.** Studies have shown that people who exercise regularly experience less pain.[35] PTs develop, administer, modify, and progress exercise prescriptions and programs to address poor conditioning, impaired strength, musculoskeletal imbalances, or deficiencies that may lead to pain.
- **Manual therapy.** Manual therapy involves hands-on manipulation of joints and soft tissue to modulate pain, reduce swelling and inflammation, and improve mobility. Research shows that manual therapy techniques are effective at reducing low back pain, discomfort associated with carpal tunnel syndrome, and other sources of pain.[36,37]
- **Stress management.** Interventions such as mindfulness, relaxation, visualization, and graded exposure to stress-producing events can help patients reduce pain and improve their functional capacities.

- **Sleep hygiene.** Individuals with persistent pain often complain of sleep disturbances. Evidence has shown that sleep deprivation can increase sensitivity levels and contribute to increased stress and pain.[38] PTs can help educate patients regarding appropriate sleep hygiene to help combat the vicious cycle of persistent pain.
- **Pain neuroscience education.** Individuals who don't understand the mechanisms and contributors to their pain may be more likely to seek pharmacological treatment for that pain. PTs can educate patients about modern pain science that highlights the processes involved in pain. The adage "know pain, know gain" can empower patients and provide hope and encouragement in their journey to overcome persistent pain.

Physical Therapy Is Effective in Treating Pain and Preventing Chronic Pain

Studies have established the efficacy of physical therapy in treating and reducing pain as well as preventing chronic pain. For example:

- **Low back pain.** A review of more than 60 randomized controlled trials evaluating exercise therapy for adults with low back pain found that such treatment can decrease pain, improve function, and help people return to work.[39] The American College of Physicians states that "non-pharmacologic interventions are considered first-line options in patients with chronic low back pain because fewer harms are associated with these types of therapies than with pharmacologic options."[40]
- **Before and after surgery.** A review of 35 randomized controlled studies with a total of nearly 3,000 patients found that in patients undergoing total hip arthroplasty, preoperative exercise and education led to significant reductions in pain, shorter lengths of stay postoperatively, and improvements in function.[41]
- **Arthritis.** Studies have shown that therapeutic exercise programs can reduce pain and improve physical function among individuals with hip and knee osteoarthritis.[42,43]

Meanwhile, research on the efficacy of opioids for long-term pain management shows they often result in unwanted side effects. Evidence also shows that the use of opioids can decrease a person's response to naturally occurring rewards.

Low back pain. One review of the literature found that "opioids do not seem to expedite return to work in injured workers or improve functional outcomes of acute back pain in primary care." And for chronic back pain, there is "scant evidence of efficacy…Opioids seem to have short-term analgesic efficacy for chronic back pain, but benefits for function are less clear."[44]

After surgery. Research shows that surgical patients who are prescribed opioids are at increased risk for chronic opioid use.[45] "New persistent opioid use is more common than previously reported and can be considered one of the most common complications after elective surgery," notes a 2017 investigation in *JAMA* Surgery.[46]

Arthritis. Studies have shown that use of opioids to treat arthritis leads to higher risk of bone fracture and increased risk of cardiovascular events, hospitalization, and mortality.[47] The author of a recent study on opioid use for pain management among spine osteoarthritis patients pointed to concerns around the "potential for misuse, dependency and increased adverse events," including death. "Growing evidence demonstrates little if any clinically significant benefit of opioids for OA [osteoarthritis] pain, particularly when compared to other medications," he said.[48]

SCENARIO: A patient avoids opioid use and gains control over her condition without secondary complications or issues.

Summary: Greta, a 33-year-old woman, experienced an inversion left ankle sprain 2 weeks ago and has severe pain in her outer ankle and foot. She has come in for treatment by a physical therapist (PT) and tells the PT that her pain level is at 8 on a 0-10 scale. She also states that she has avoided physical activity and "favors" her left ankle and foot, both because of her pain and because she is afraid of making the injury worse or causing permanent damage. From this and other data collected during the examination, the PT has determined Greta to be at high risk for developing persistent pain because the patient presents with increased stress and anxiety from her injury, hypervigilance and fear of activity, pain catastrophizing, inability to pace her activity level appropriately to her condition, financial concerns that may keep her from seeking adequate treatment, and concern about long-term implications.

Focus of Care: The PT collaborates with other team members, and they work together with Greta to address her beliefs and behaviors in order to reduce her fear and anxiety, improve her mobility at an appropriate pace, and create accurate expectations for her recovery. For example, Greta works with a behavioral health psychologist to change conditions that escalate her distress and fear. She learns to adopt a positive attitude toward her healing process, practicing gratitude for the good things in her life and engaging in activities that bring her happiness. The PT develops a plan of care that effectively involves Greta in her recovery and improves her pain-coping skills by incorporating instruction in effective pain-management techniques including pacing, relaxation breathing, and resuming activities that promote enjoyment without increasing pain. Treatment focuses on gradually restoring her function and activity as her injury heals. Between her early and later sessions, there is a definite shift in Greta's perception of her pain and how it is affecting her physically, emotionally, and financially.

Outcomes: Greta is able to return to work and does not develop persistent pain. She was motivated and empowered through her treatment to independently manage her symptoms, increase her physical activity at a safe pace, and educate herself on preventing further damage or future injury—all without the need for opioid pain medication.

SCENARIO: A patient lowers her dependence on pain medication when the PT actively engages her in a sustainability plan that also improves her function and decreases her need for repetitive care.

Summary: Jean, a 73-year-old woman, has been taking Percocet daily for several years after being diagnosed with degenerative changes in her neck, back, knees, and feet. She has been seen by PTs several times intermittently in the past, but the prescribed treatments haven't been sustainable, while the pills offered her some immediate—if less than satisfactory—pain relief. Jean now presents for an initial visit with a PT with a goal of discontinuing the Percocet. She offers that her granddaughter is a supportive caregiver who can be counted on to assist in her plan of care. Upon examination, the PT determines that Jean has generalized weakness, poor balance, poor fitness, fair overall health, and difficulties with performing activities of daily living. Jean also has developed some fear of movement and expresses a great deal of stress associated with her longstanding condition.

Focus of Care: The PT determines that an integrated plan of treatment will be most beneficial to Jean, combining physical therapist interventions with fitness, such as yoga, and behavioral health strategies. The PT identifies community resources and works with Jean and her granddaughter to identify beneficial programs at the local senior center that are compatible with their schedules. The PT develops a comprehensive pain treatment strategy beginning with an evaluation of how effectively Jean's current use of pain medication addresses her chronic conditions. The approach then is to create a model of sustainability that Jean can achieve through her work with the PT. Jean will transition into self-management to avoid sliding back into heavy medication use. Steps will include managing Jean's chronic conditions to lessen her periods of active pain, educating her about her pain, and building strength, balance, and endurance to improve her overall health. Peer support for behavior changes also are part of the plan. The PT involves Jean's granddaughter in her treatment plan and sessions in order to promote a smooth transition from skilled therapy.

Outcomes: Jean no longer takes pain medication routinely, limiting her use to the occasional situation in which her pain is exacerbated. At other times, she self-manages her conditions by participating in gym workouts and group yoga classes, often enjoying those times with her granddaughter, who is pleased to see her grandmother more active and healthy.

SCENARIO: Physical therapist treatment is an effective and viable approach to helping a patient who wants to end his dependency on opioids but still needs to manage his pain.

Summary: Cliff is a 63-year-old male with chronic pain resulting from a series of 7 surgeries over the past 8 years, not all of them successful. He rates his pain level at 7 out of 10, despite taking 10 325m Vicodin daily. He indicates that he has little energy and that loss of appetite and nausea affect his eating habits. Upon taking a history during examination, the PT learns that Cliff's surgeries include a failed meniscal repair of the right knee, a failed implant in the right great toe for arthritis, 3 surgeries to repair traumatic fractures of both ankles, surgical repair of a left elbow fracture, and surgical repair of a left wrist fracture.

Focus of Care: As a member of an interprofessional team including an opioid-addiction specialist, the PT works with Cliff to develop a plan of care that will move Cliff from being pain-centric to function-centric as soon as possible. With Cliff's long history of pain and resulting dependence on Vicodin, the team works together to address the effects of opioid withdrawal as a component of the overall treatment plan. This includes monitoring and addressing withdrawal symptoms while incorporating techniques that will improve Cliff's function without increasing his pain. For the best chance of success, the team involves Cliff up front in treatment decisions to determine which strategies have worked—and which have failed, gaining his confidence and trust in the plan of care. Treatment begins right away, and while the first few weeks are challenging, as Cliff adjusts to being off the Vicodin he is able to better tolerate his exercises and improve his functional performance.

Outcomes: Cliff states that the results of his treatment are "unbelievable." Following the collaborative plan of care, his pain symptoms have decreased by 80%, he has increased energy, and his appetite has improved.

CONCLUSION

The National Quality Forum (NQF), a leading health care research and advocacy group, recently announced the formation of an Opioid Stewardship Action Team to address the opioid epidemic. The team, which includes representatives from the CDC, the American Society of Health System Pharmacists, and the American Physical Therapy Association (APTA), among others, has developed what it describes as a "playbook" that will focus on "improving prescribing practices and identifying strategies and tactics for managing care of individuals" at risk of opioid dependence.[49] Other programs also have been launched to help bring the opioid crisis to an end—ranging from an event led by the Academy of Integrative Pain Management called the "Integrative Pain Care Policy Congress" to APTA's own #ChoosePT opioid awareness campaign, which encourages consumers and prescribers to follow the CDC's opioid-prescription guidelines.[50,51]

The take-home message from each of these initiatives is that the opioid epidemic is a complex problem that will be solved only through multidisciplinary collaboration, and that individuals with chronic pain must be offered interventions that not only control pain but also address the causes of pain. The CDC, NQF, and other major health agencies and organizations all have affirmed that nonpharmacological and nonopioid therapy can be effective in managing chronic pain. It's time for the health care system to look beyond opioids to options such as physical therapist interventions that treat pain and combat chronic pain by addressing its source(s).

RECOMMENDATIONS

APTA recommends that policymakers include the following activities and actions as part of a comprehensive response to the opioid crisis.

1. **The federal government should develop and implement a comprehensive public awareness campaign targeting health care providers, payers, regulators, employers, and the general public on pain assessment and options for pain management.**
2. **Public and private health plans should include benefit design, reimbursement models, and integrated team approaches that support early access to nonpharmacological interventions, including physical therapy, for the primary care of pain conditions.**
3. **Private and public health plans should remove barriers to effective care by reducing or eliminating patient out-of-pocket costs and by increasing access to and payment for person-centered, nonpharmacological pain management and treatments interventions.**
4. **Public and private health plans should educate primary care providers and physicians on the value of nonpharmacological, person-centered interventions and how to appropriately assess, treat and refer patients with pain.**
5. **Federal and state policymakers should identify and finance the replication of effective models of pain management care, including reducing or eliminating patient out-of-pocket costs and allowing for bundled payment methods for multidisciplinary programs.**
6. **Federal and state student loan repayment programs should incentivize health care professionals, including physical therapists, to work in underserved communities disproportionately affected by the opioid crisis.**

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