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Overcoming Overuse: Improving Musculoskeletal Health Care

Care for musculoskeletal conditions is evolving. For more than 2 decades, clinical practice guidelines for conditions such as knee pain and low back pain recommended medication as first-line care, then surgery for selected patients who did not respond. Current recommendations now prioritize nonpharmacological interventions. Advice and exercise for musculoskeletal conditions, such as low back pain and hip and knee osteoarthritis, have replaced medication as first-line care, and some surgical procedures are actively discouraged.[11] What prompted the changes to recommendations? An increase in high-quality research evidence and awareness of the harms of overuse.[2,10]

Overuse of health care is the use of services that have no net benefit or cause harm.[2,10] Overuse includes overlapping concepts of low-value care and overtreatment (**TABLE**). Changes in clinical practice guidelines provide an unprecedented opportunity for physical therapists to prevent overuse and lead the evidence-based management of musculoskeletal conditions. In the "Overcoming Overuse" series, we explore the evidence of overuse in musculoskeletal health care and propose potential solutions.

Global Awareness of Overuse in Musculoskeletal Care

Greater awareness of the enormous waste due to overuse (estimated to be as high as 30% of total health care spending)[1] has spurred global initiatives to tackle the issue. For example, Choosing Wisely (http://www.choosingwisely.org) aims to reduce overuse by engaging with professional bodies to publish their own "do-not-do" lists of tests and treatments. There are over 150 Choosing Wisely recommendations that focus on musculoskeletal conditions (eg, low back pain, knee osteoarthritis, shoulder pain, rheumatoid arthritis).

Opportunity cost is an important consequence of overuse. Today, finite health care resources are being used to fund ineffective (eg, knee arthroscopy) and unproven health services for musculoskeletal conditions (eg, opioids for acute low back pain).[1] These funds could be better spent on services known to improve musculoskeletal health (eg, exercise and weight-loss programs for knee osteoarthritis). Overuse compounds when ineffective or unproven health services crowd out recommended care.

The CareTrack study in Australia monitored 35 573 health care encounters and found that only 43% of patients with osteoarthritis and 72% with low back pain received recommended care when they visited a health care professional.[6] There were similar results in the United States (57% for osteoarthritis and 68% for low back pain).[5] We found that 1 in every 3 physical therapists across 19 countries did not provide recommended care for common musculoskeletal conditions, such as back pain, knee osteoarthritis, and ankle sprains.[11] However, it is difficult to disentangle overuse from these numbers. We will explore the challenge of directly measuring overuse later in this series.

Physical Therapy: Friend or Foe?

As the physical therapy profession grows and clinical practice guidelines increas-

SUMMARY: This is the first article in a series on "Overcoming Overuse" in musculoskeletal health care. *Overuse* is the use of services that are unlikely to improve patient outcomes, result in more harm than benefit, and would not be desired by an informed patient. The Overcoming Overuse series explores the myriad ways diagnostic tests and treatments are overused in musculoskeletal health care, and proposes ways to ensure patients receive appropriate care. We focus on strategies to promote guideline-concordant care in rehabilitation practice and strategies to overcome overuse. *J Orthop Sports Phys Ther 2020;50(3):113-115. doi:10.2519/jospt.2020.0102*

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ingly encourage people to seek nonpharmacological care,[11] it is vital to consider how physical therapists can help prevent overuse. In the United States, there are nearly 250 000 physical therapists, and the profession is estimated to grow 28% within the next 10 years. In Australia, there are now more practicing physical therapists than general practitioners, and 1 in 10 Australians visit a physical therapist each year. Growth in the physical therapy workforce will undoubtedly raise awareness of the profession, and may drive use of physical therapy services. This is an important opportunity for physical therapists to draw from the large evidence base that underpins the profession to improve the quality of the musculoskeletal health care they provide.

While physical therapy treatment may be less expensive and carry fewer risks than imaging, surgery, and opioids, the value of the care provided is critical. The annual cost of physical therapy is estimated at $1 billion in Australia and over $25 billion in the United States.[11] If physical therapists do not provide recommended care, it is possible that increased emphasis on nonpharmacological care could reduce overuse in one area (eg, surgery) but create overuse in another (eg, electrophysical agents for low back pain).

One in 4 physical therapists provide treatments for musculoskeletal conditions that guidelines recommend against, and nearly half provide treatments that have not been well researched.[11] Not all agree with recommendations to reduce some services (eg, only 52% of physical therapists agree that electrotherapy should not be provided for low back pain).[12] Without considering the type or amount of treatment, blind advocacy for physical therapy as a blanket alternative to medication or surgery could lead to overuse.

Understanding the Drivers of Overuse in Musculoskeletal Care

Although data on the drivers of overuse in physical therapy are scarce, the 2017 *Lancet* Right Care series highlighted several relevant drivers of overuse in medicine.[7] Economic incentives, such as fee-for-service and volume-based payments, likely influence clinicians' decisions. In countries where physical therapists bill for specific treatments, health insurance coverage and payment models could encourage the use of profitable, yet ineffective or untested, treatments. The knowledge, beliefs, expectations, assumptions, and biases of physical therapists and their patients can also drive overuse. Any strategy to overcome overuse will therefore require understanding of a diverse set of contributors to the problem.

The Overcoming Overuse Series

We are optimistic that physical therapists can seize the opportunity to "overcome overuse" and lead evidence-based health care for musculoskeletal conditions. In this series, we will explore the many facets of overuse in musculoskeletal

TABLE Definitions of Overuse and Related Concepts, Adapted From Traeger et al[10] and the 2017 *Lancet* Right Care Series[2]

Term	Definition	Example
Overuse	Provision of a service that is unlikely to increase quality or quantity of life, that poses more harm than benefit, or that patients who were fully informed of its potential benefits and harms would not have wanted	Despite clinical practice guidelines recommending against knee arthroscopy for degenerative meniscal tears or osteoarthritis, over 33 000 surgeries are performed in Australia each year[10]
Overdiagnosis	An (asymptomatic) person is diagnosed with a condition; the diagnosis does not produce a net benefit for that person	An asymptomatic child diagnosed with a mild scoliosis
Overdetection	A health-related finding is detected in an asymptomatic person, probably by testing technology. The finding does not produce a net benefit for that person	Findings on shoulder imaging that are common in asymptomatic people (when there is no way to reliably link imaging findings to symptoms). Rotator cuff tears are more common in asymptomatic people (compared to symptomatic people) from ages 20 to 29 (7% versus 4%) and 30 to 39 (21% versus 14%) years[9]
Overtreatment	Provision of treatment with no net benefit by individual clinicians to patients	Use of ineffective therapies for knee osteoarthritis. In 2017, half of the 284 Belgian physical therapists surveyed advocated treatments shown to have no net benefit for patients with knee osteoarthritis, such as ultrasound and electrical stimulation[8]
Overmedicalization	Altering the meaning or understanding of experiences, so that human problems are reinterpreted as medical problems requiring medical treatment, without net benefit to patients	Professional associations promoting early management of acute low back pain, despite its positive natural history and a randomized controlled trial showing that 4 sessions of physical therapy delivered within 2 weeks of pain onset provide little to no benefit for patients with acute low back pain[3] Professional associations promoting regular check-ups with a physical therapist despite no evidence of benefit
Low-value care	An intervention that confers no or very little benefit on patients, or the risk of harm exceeds probable benefit, or the added costs of the intervention do not provide proportional added benefits	Subacromial decompression surgery for shoulder pain provides similar effects to placebo surgery and is not recommended in guidelines. Nearly 20 000 surgeries are performed in England each year[4]

diagnosis and treatment. We will propose solutions to support evidence-based, patient-centered, safe, and appropriate musculoskeletal care.

The Overcoming Overuse series has 5 key objectives:

1. Define and measure overuse of diagnostic tests and treatments in musculoskeletal health care
2. Outline the potential drivers of overuse
3. Explore how vested interests can increase the risk of overuse
4. Discuss funding arrangements that foster quality care delivery
5. Consider the evidence base for using shared decision making to reduce overuse

We hope to engage the *JOSPT* community on a variety of themes relevant to avoiding overuse of musculoskeletal health care. We encourage users to follow the series using the #overcomeoveruse hashtag. Suggest further ideas for the Overcoming Overuse series by e-mailing jospt@jospt.org or via social media (@JOSPT).

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