

# How Physiotherapists and Orthopedic Surgeons Manage Patients with Knee Osteoarthritis in Nepal? A Nationwide Cross-Sectional Study

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## **Affiliations:**

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# Background

(What we already know?)

- Osteoarthritis (OA) is a leading cause of pain, loss of function and disability worldwide, including in Nepal, with the knee joint being the most commonly affected.  
*GBD study 2021, Higgins C et al 2023*

- The prevalence of OA in Nepal is reported to be 41% among individuals aged above 65 years.  
*Yadav UN et al 2021*

- The number of patients with OA is increasing and is projected to rise significantly by 2050.  
*GBD study 2021*

- Orthopedic surgeons and physiotherapists are the primary healthcare providers for the management of osteoarthritis.  
*Eyles JP et al. 2022, Ho-Henriksson CM et al 2022*

# Objectives

(Knowledge gaps and the focus of our studies)



How do physiotherapists  
manage patients with  
knee OA?



How do orthopedic  
surgeons manage  
patients with knee OA?



# Methodology

(What we did?)

Development and validation of survey questionnaires

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graph TD; A[Development and validation of survey questionnaires] --> B[Pilot testing (Face and content validity)]; B --> C[Survey administration (Google forms and pen-paper based)]; C --> D[Data analysis and reporting (Contd.)];
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Pilot testing (Face and content validity)

Survey administration (Google forms and pen-paper based)

Data analysis and reporting (Contd.)

## Core recommendations

Education for self management	Physical activity and exercise	Weight management
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## Strong recommendations

Topical NSAIDs	Yoga and Tai Chi
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## Conditional recommendations

Oral NSAIDs	Corticosteroid injection	Walking aids and assistive devices	Manual therapy	Thermal therapy
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## Strong recommendation against

5/13/2026	Arthroscopy	Opioids
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# Summary of OA clinical practice guideline recommendations



Osteoarthritis and Cartilage  
Volume 32, Issue 6, June 2024, Pages 654-665

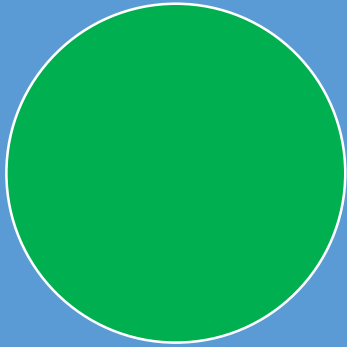


Review

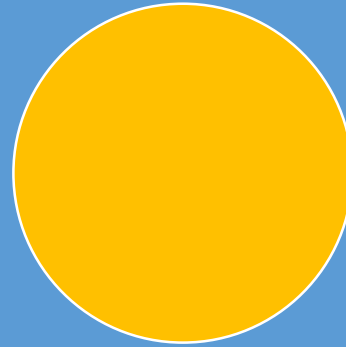
## Appraisal of quality and analysis of the similarities and differences between osteoarthritis Clinical Practice Guideline recommendations: A systematic review

Bimbi Gray #<sup>1</sup> , Alison Gibbs †<sup>2</sup> , Jocelyn L. Bowden #<sup>1</sup> , Jillian P. Eyles #<sup>1</sup> , Sandra Grace †<sup>3</sup> , Kim Bennell ¶ , Rinie Geenen || , Sharon Kolasinski ##<sup>4</sup> , Christian Barton †<sup>5</sup> , Philip G. Conaghan †† , Timothy McAlindon †† , Olivier Bruyere †† , Quentin Géczy #<sup>1</sup> , David J. Hunter #<sup>1</sup>

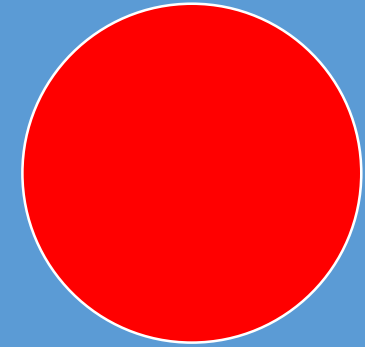
# Who is considered guideline-concordant?



'always' or 'mostly' for  
core and strongly  
recommended  
treatments



'mostly' or 'sometimes' or  
'rarely' for conditionally  
recommended  
treatments



'rarely' or 'never' for  
treatments with a strong  
recommendation against  
their use



# Results

(What we found?)

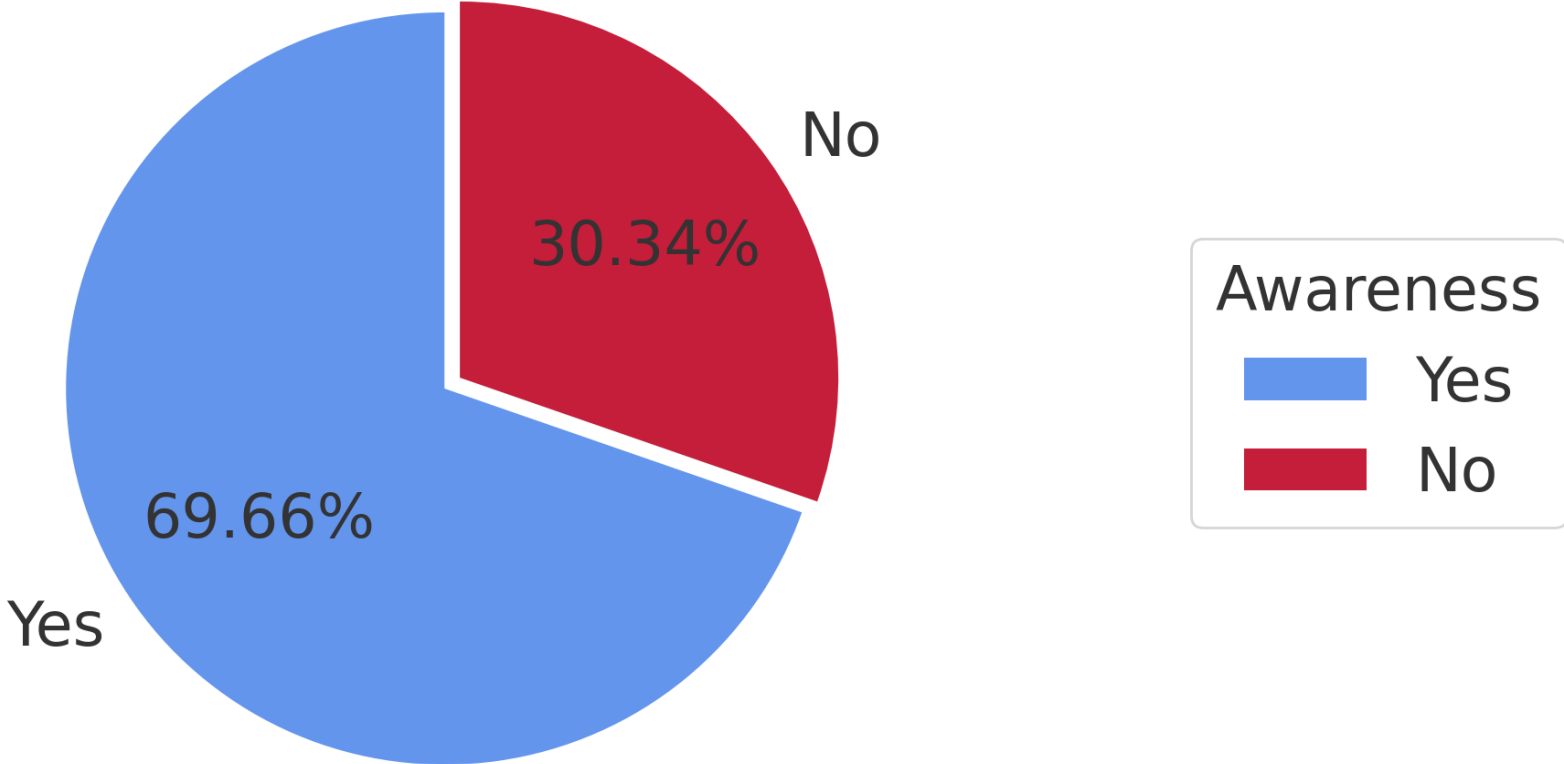
# Physiotherapist



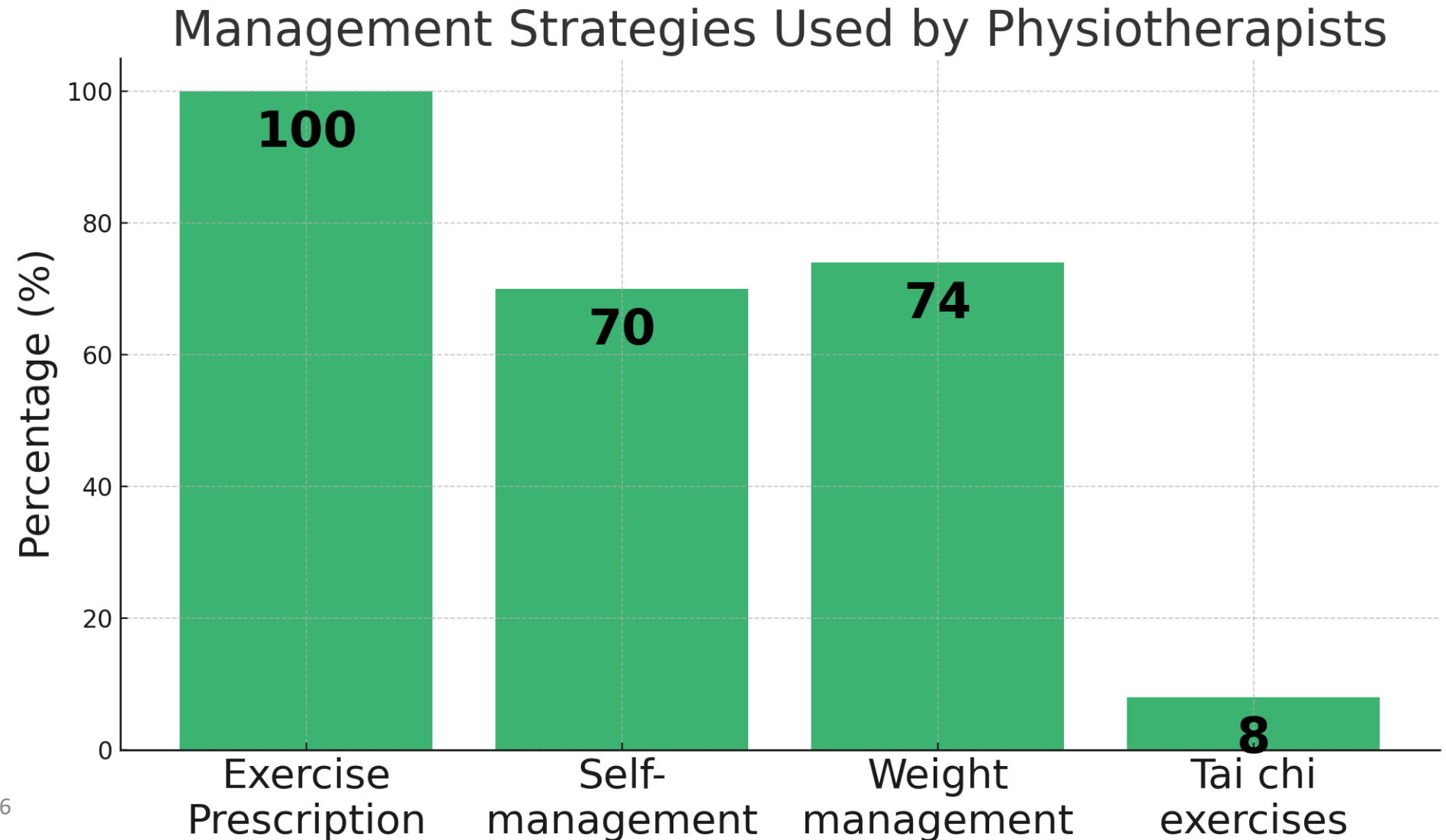
# Demographic and occupational characteristics

- Total of 145 physiotherapist (50% female) participated in the study.
- A majority (70%) had Bachelor as their highest academic degree.
- Nearly three-quarters (74%) had less than five years of working experience.

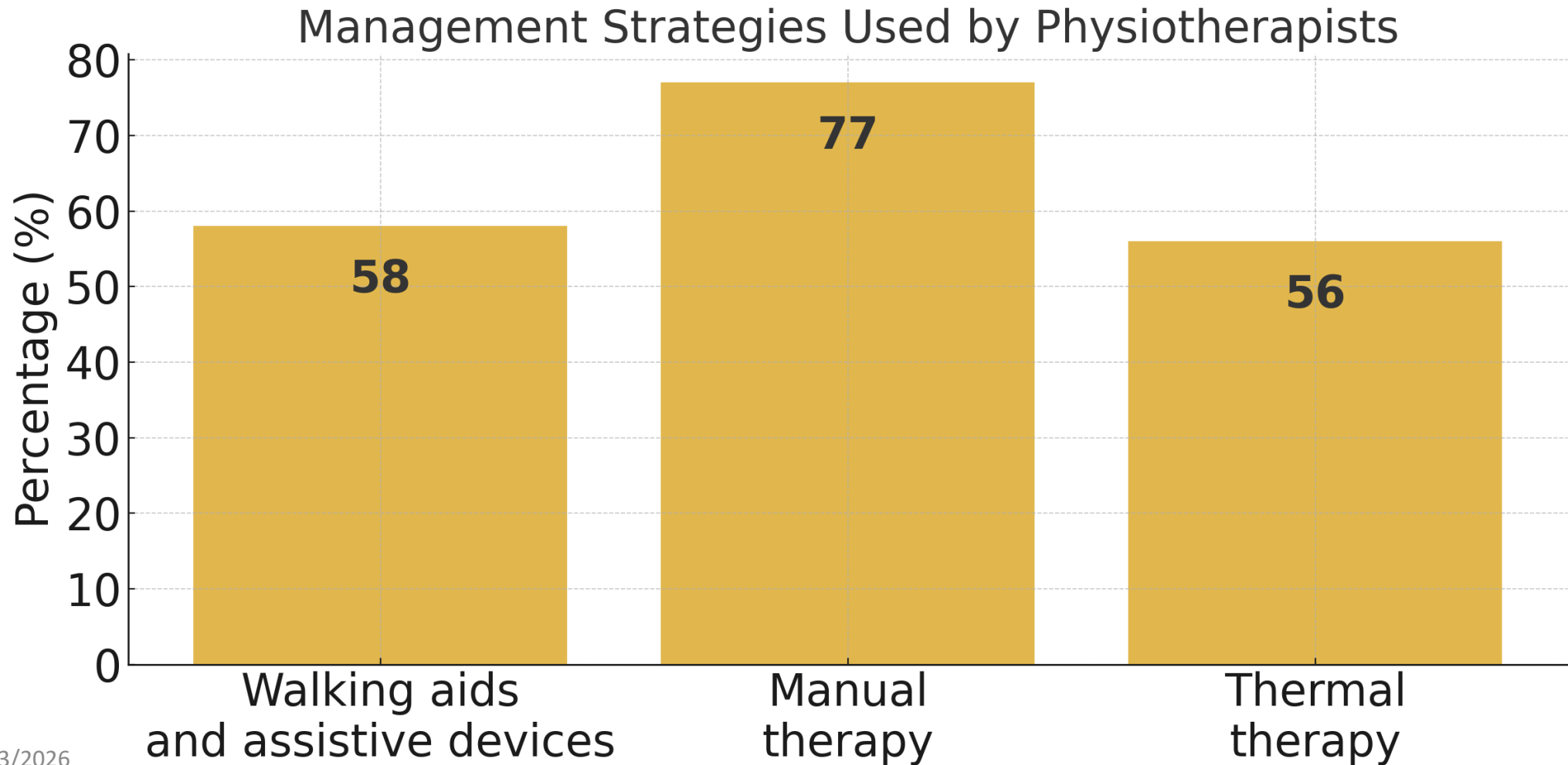
# Awareness of OA clinical practice guidelines



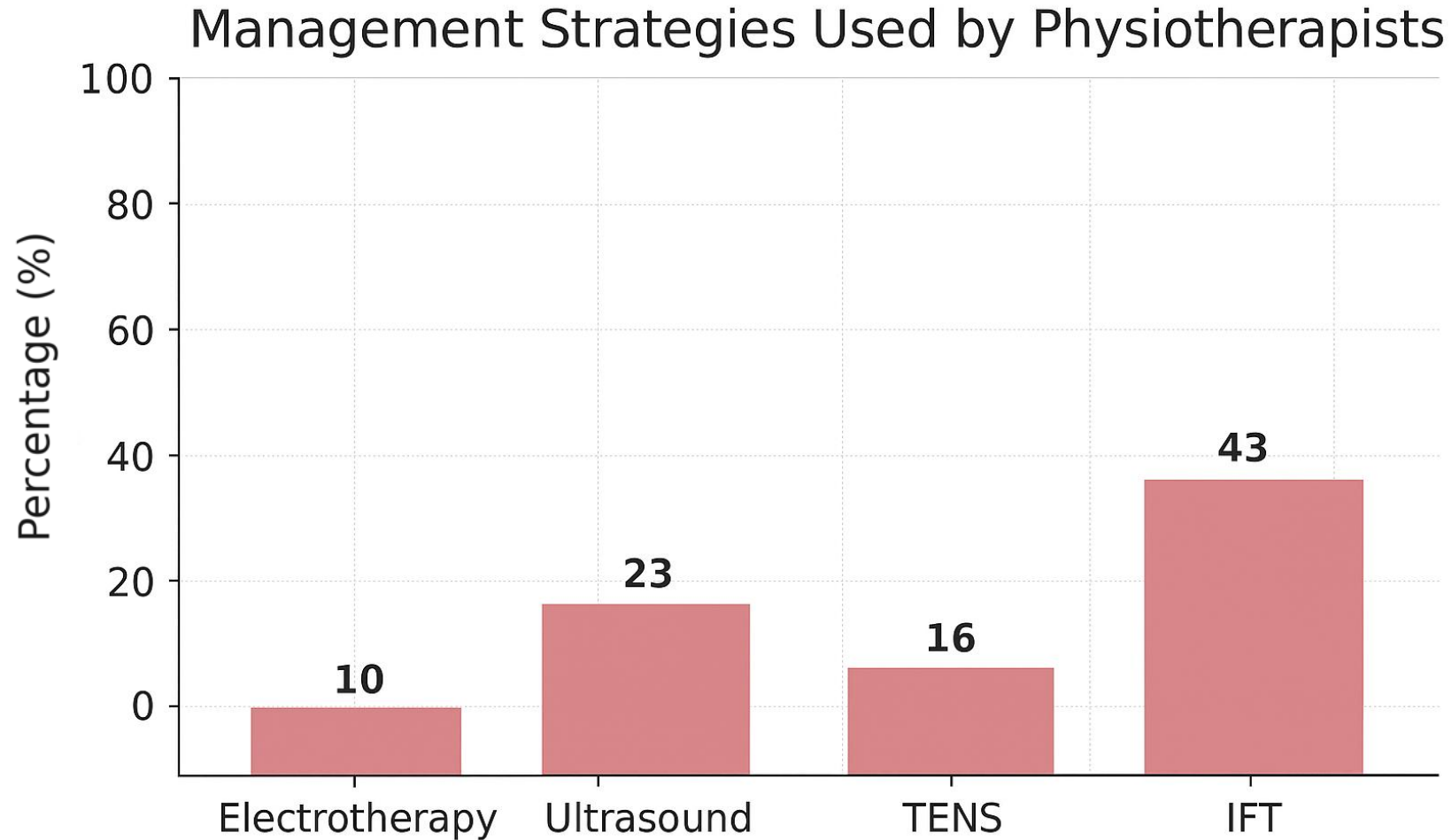
# Core and strongly recommended treatments



# Conditionally recommended treatments



# Treatments with a strong/conditional recommendation against their use



# Orthopedic Surgeon

5/13/2026

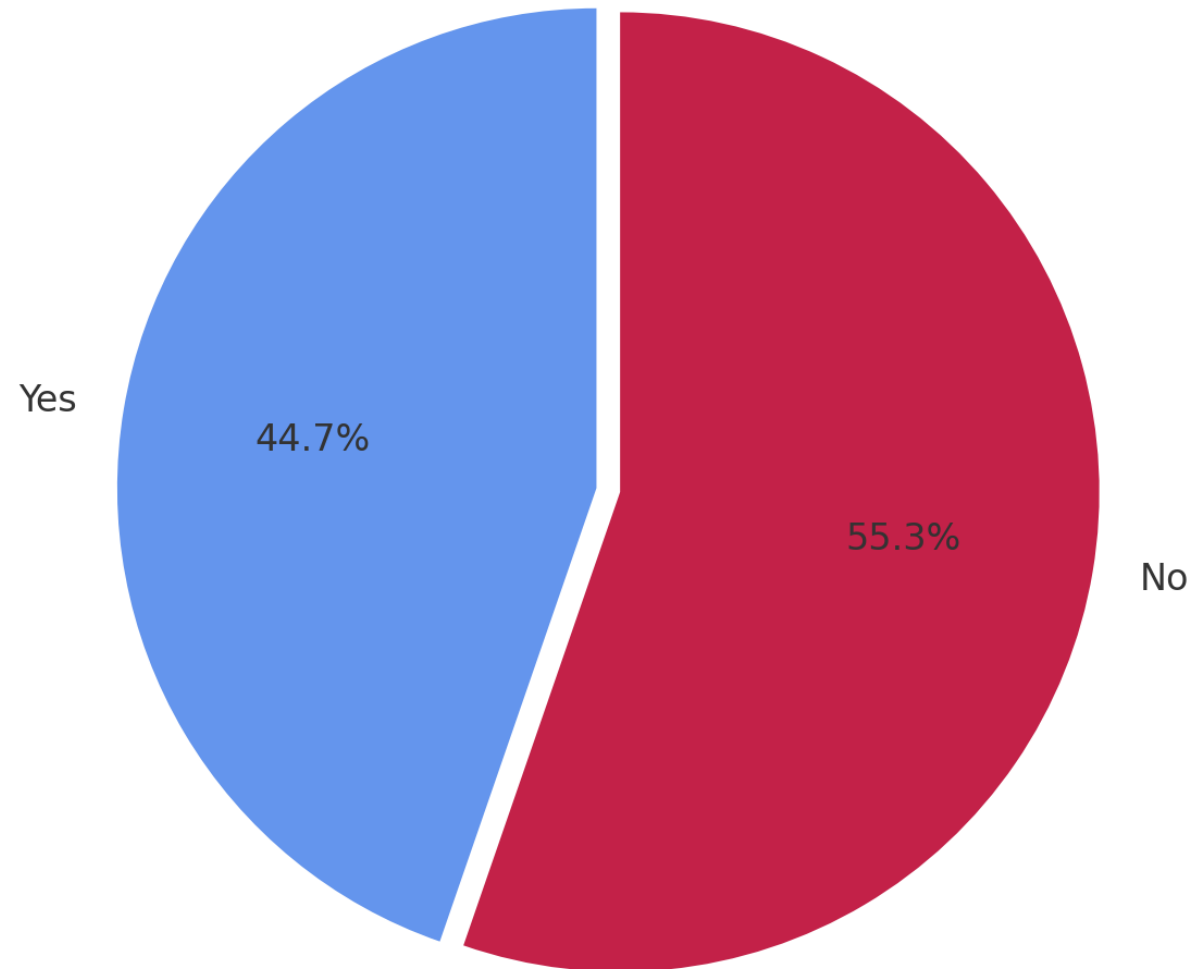


*Picture credit: Coastal Empire Orthopedics<sup>17</sup>*

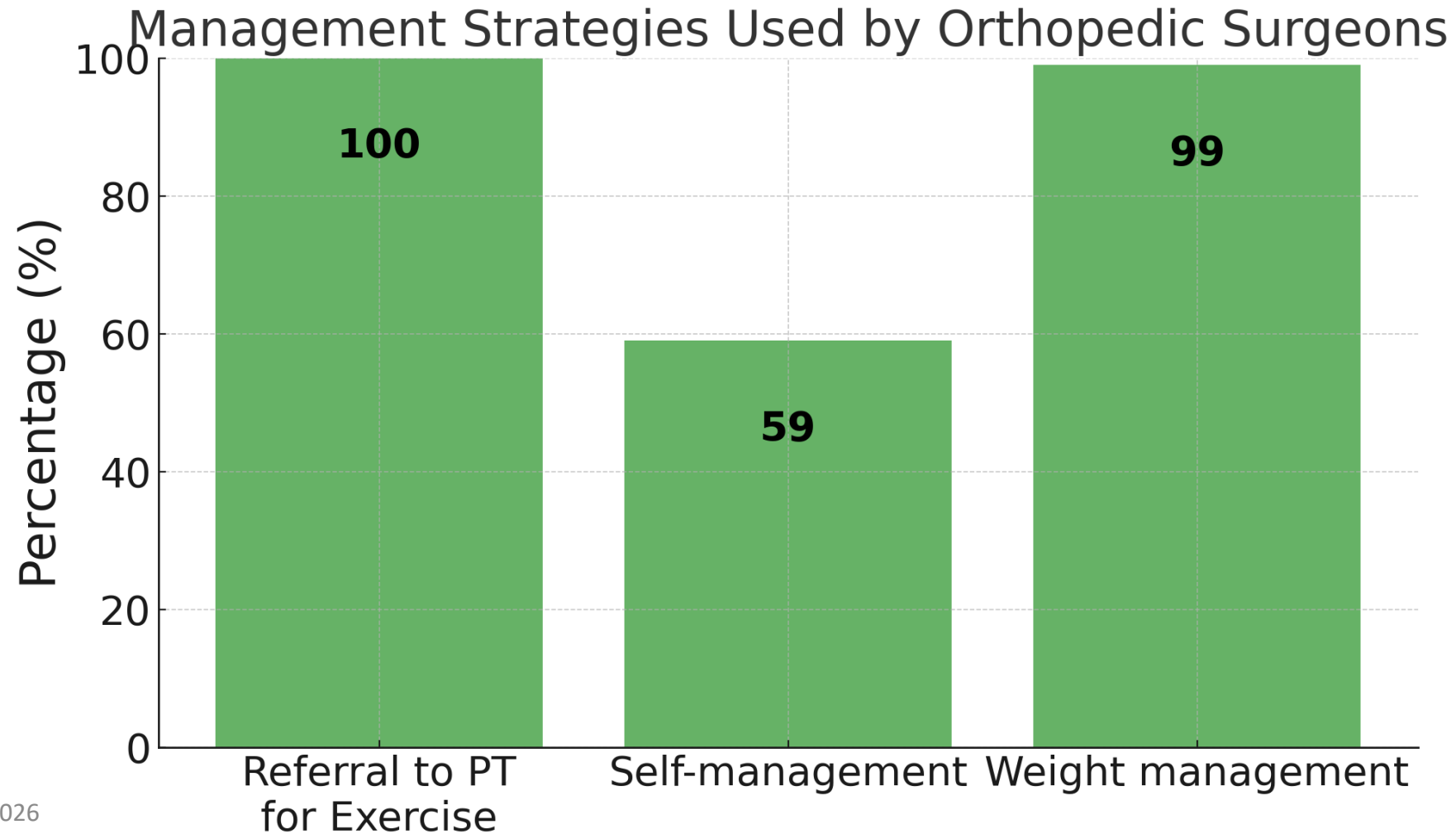
# Demographic and occupational characteristics

- A total of 85 orthopedic surgeons (1% female) participated in the study.
- Half of the participants had less than five years of working experience.

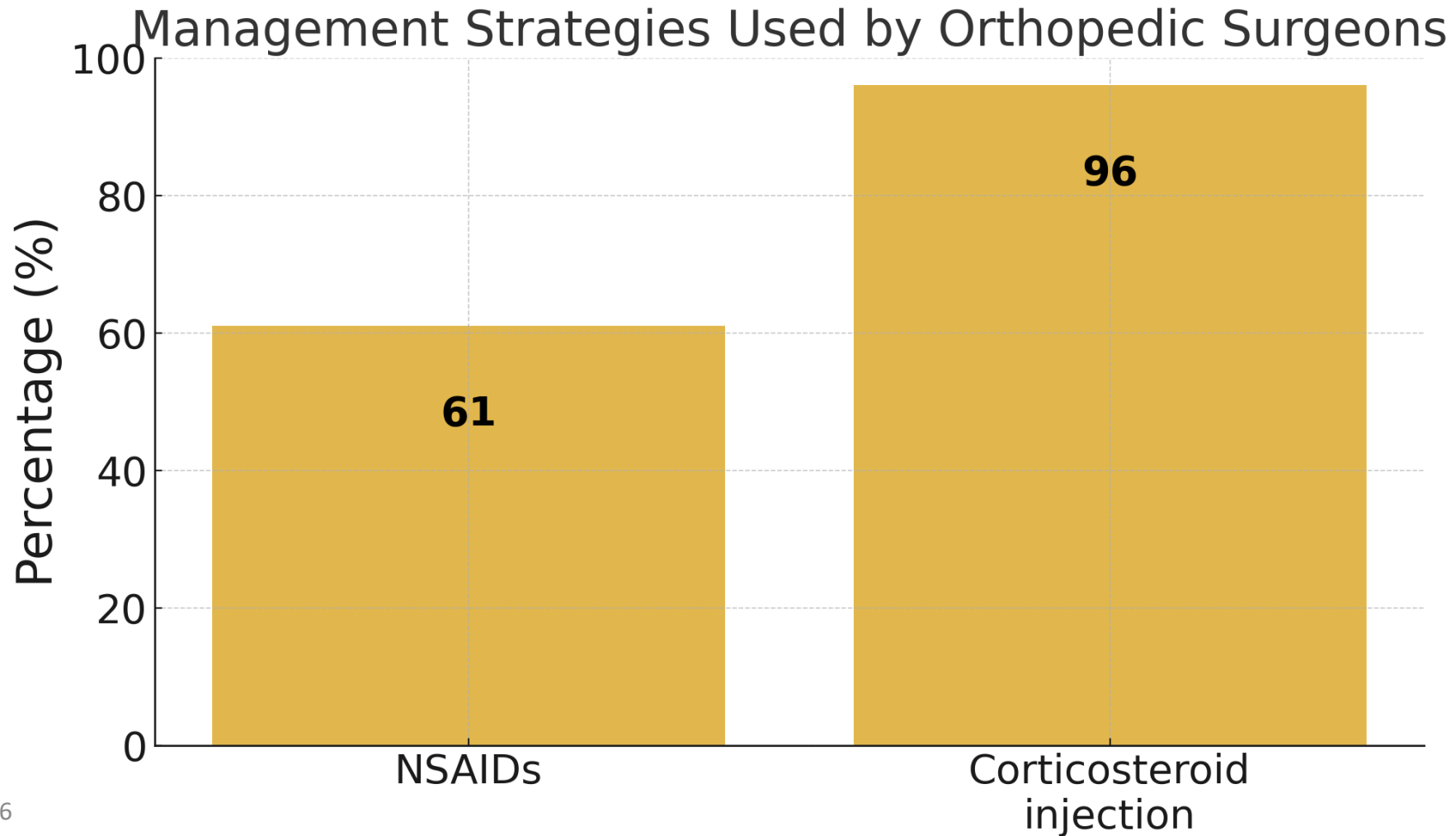
# Awareness of clinical practice guidelines



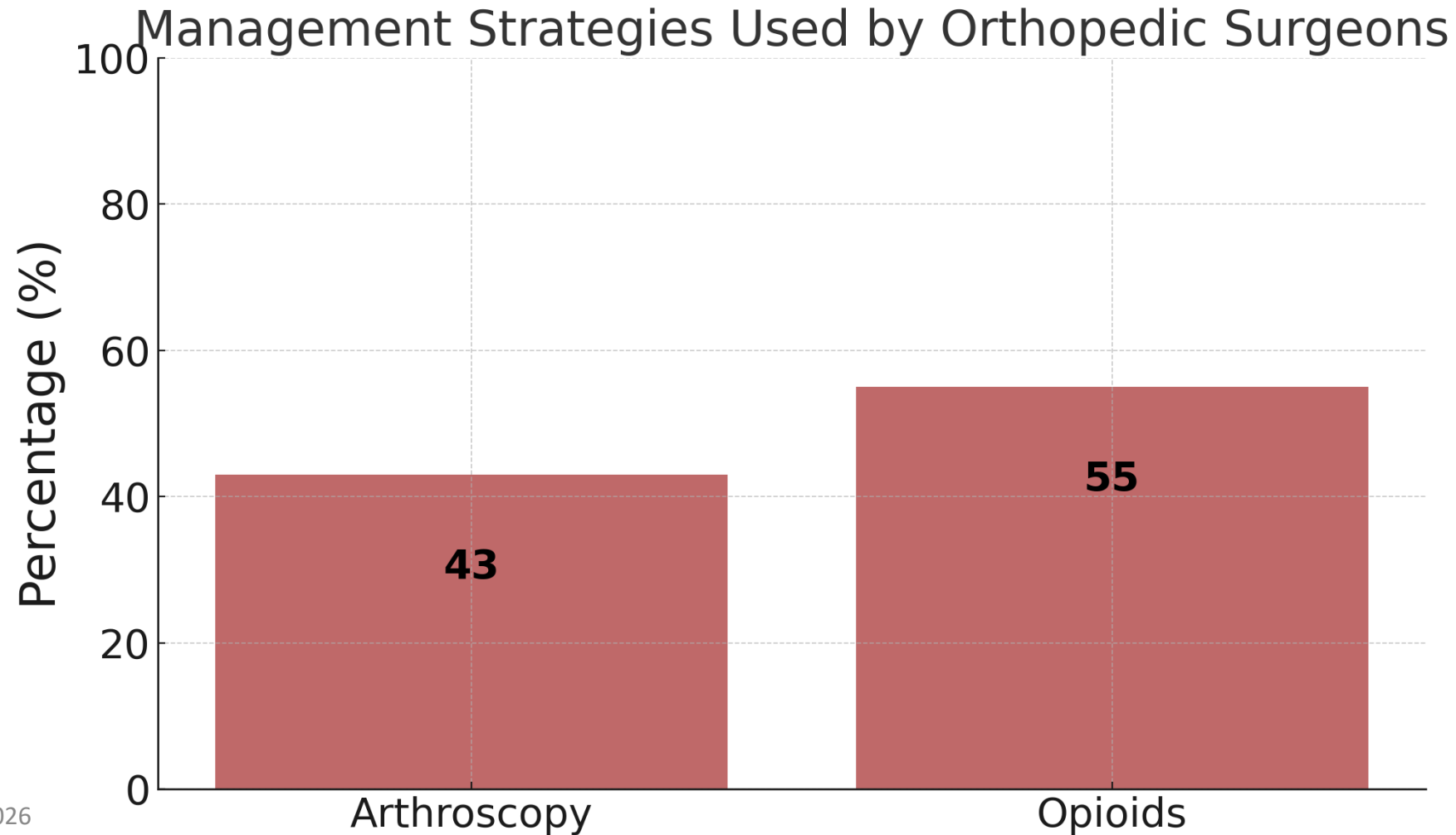
# Core and strongly recommended treatments



# Conditionally recommended treatments



# Treatments with a strong recommendation against their use



(Conclusion)

What are the key takeaways?

- The majority of healthcare professionals are guideline-concordant with core and strongly recommended treatments, such as exercise and weight management.
- However, many healthcare professionals do not adhere to guidelines for treatments with a strong recommendation against their use, such as electrotherapy, opioids, and arthroscopy.
- Continued professional development programs, such as Arthritis Training Learning and upskilling (ATLAS), that emphasize evidence-based OA care may enhance the adoption of recommended interventions and reduce reliance on non-evidence-based practices.

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**Let's connect on LinkedIn!**

I am a Lecturer and Musculoskeletal Physiotherapist at Kathmandu University School of Medical Sciences/Dhulikhel Hospital, where I contribute to both academic and clinical teaching for Bachelor and Master of Physiotherapy students.

As an early-career researcher, my primary focus is osteoarthritis (OA), a condition I frequently encounter in clinical practice.

My goal is to equip health professionals with the knowledge and skills to deliver evidence-based OA care in Nepal and to explore sustainable models for its implementation.