

# Effectiveness of non-pharmacological interventions in pain management for patients with opioid use disorder



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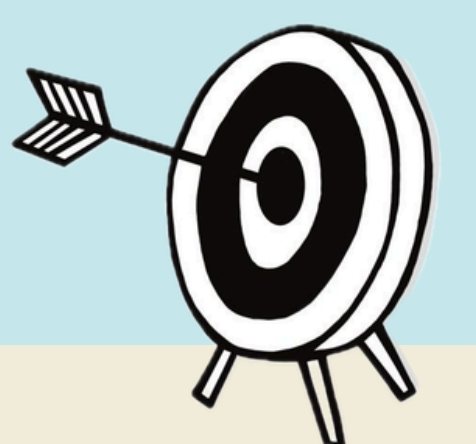
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## INTRODUCTION

- Opioid Use Disorder (OUD) is a problematic pattern of chronic opioid use causing clinically significant impairment or distress (1).
- Around 9 million people misuse opioids annually; ~80,000 deaths/year, with 70% of overdoses being opioid-related (2).
- It is a chronic, relapsing condition with complex pain management due to tolerance, opioid-induced hyperalgesia, and relapse risk (3). Effective and safe interventions are urgently needed (4).
- Non-pharmacological interventions are valuable adjuncts or alternatives to pharmacological treatments for pain management with minimal adverse effects and potential to reduce opioid reliance (5).
- Exploring non-pharmacological approaches may represent an effective strategy for improving pain management in patients with OUD, and nurses play a pivotal role in the implementation of these new interventions.

## OBJECTIVE

Examine what non-pharmacological interventions have demonstrated effectiveness in improving pain management among patients with opioid use disorder.



## METHODOLOGY

**PIO question:** What non-pharmacological interventions have proven effective in managing pain in patients with an opioid use disorder?



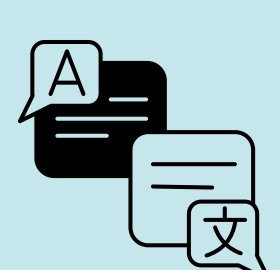
Literature review



PubMed  
CINAHL



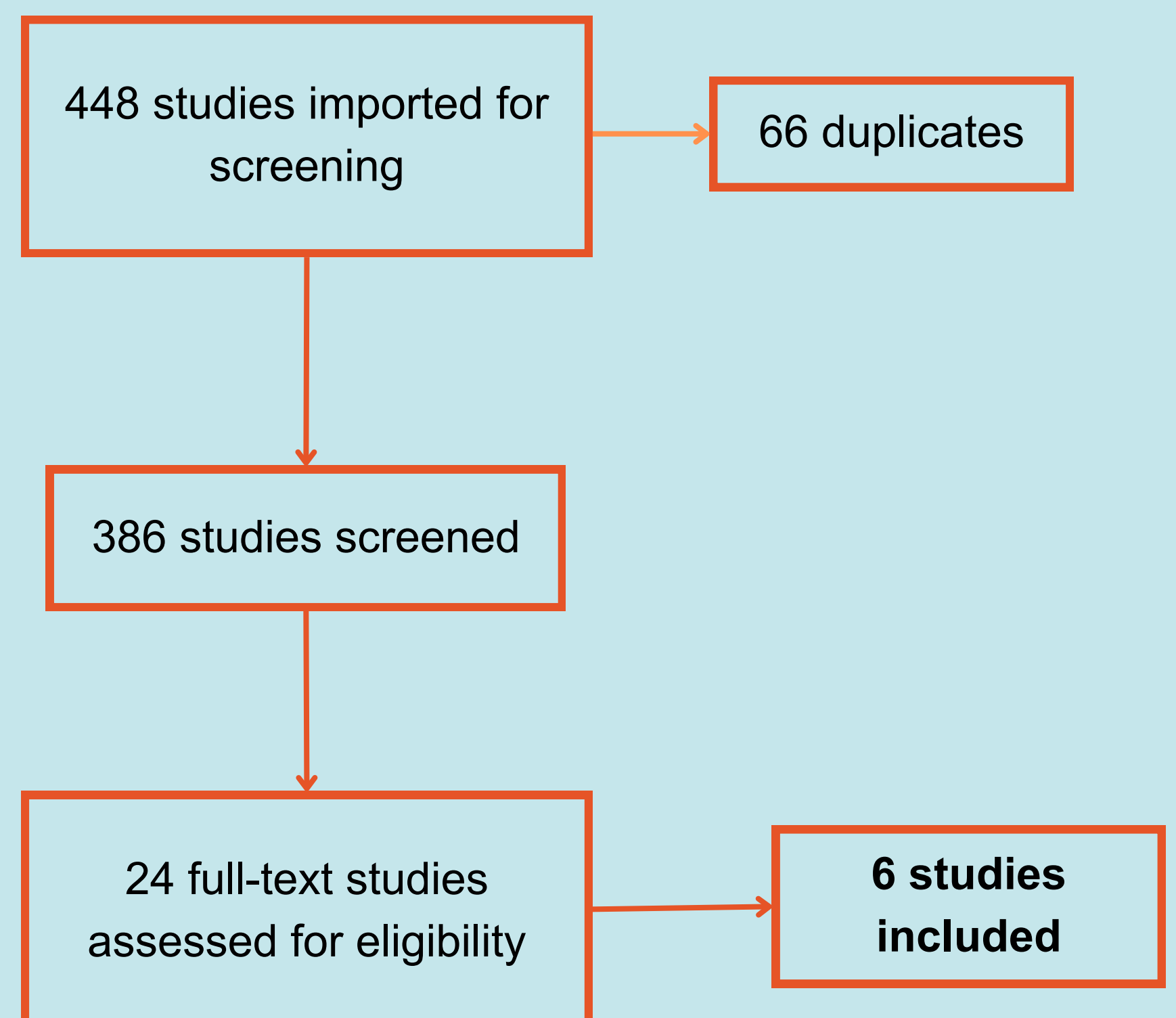
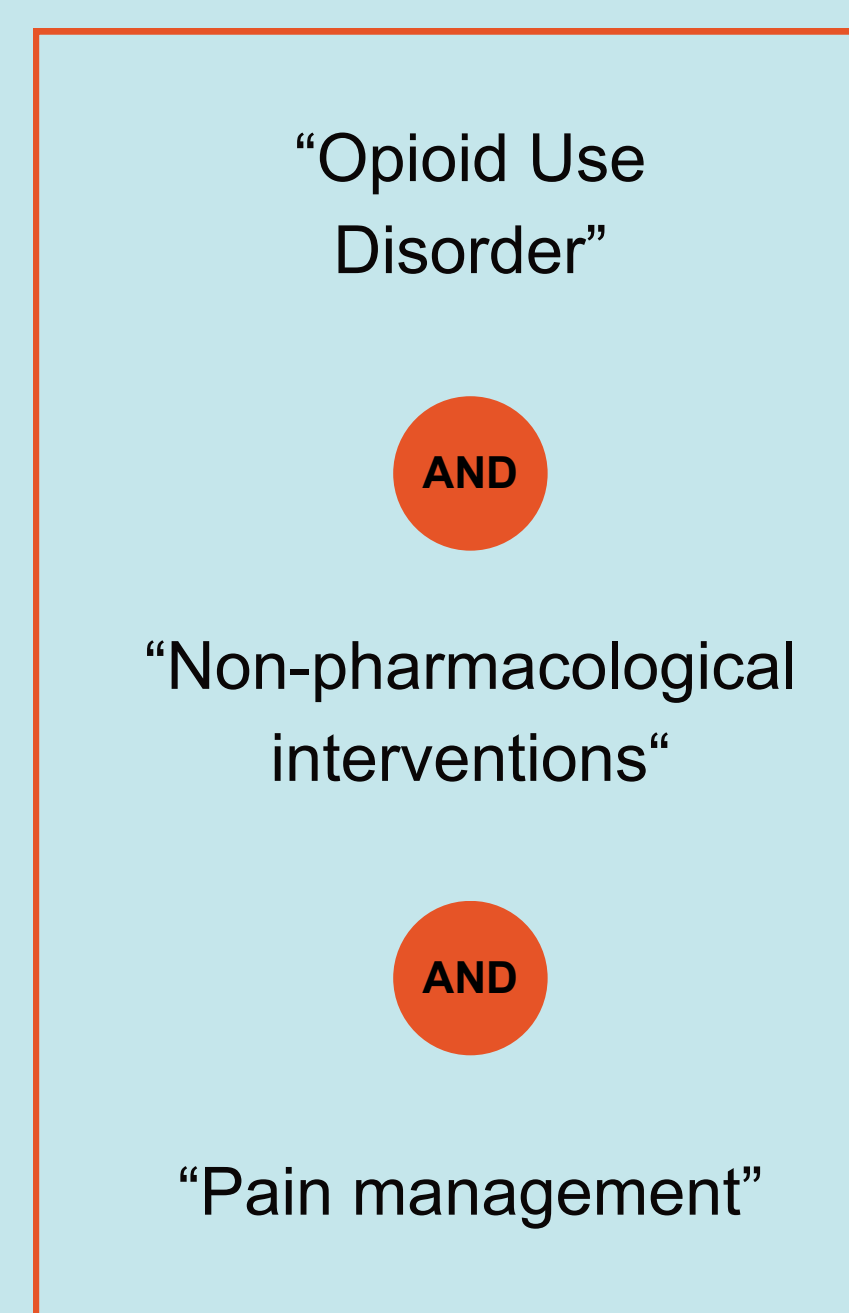
Last 10  
years



English and  
Spanish

### Exclusion criteria

Patients with opioid tolerance, Patients at risk of opioid misuse, End of life patients, Pharmacological treatment, Perioperative opioid treatment, Grey literature and conference abstracts, Pregnant women, perinatal opioid use, Invasive interventions, Education intervention for professionals, Pharmacists' intervention

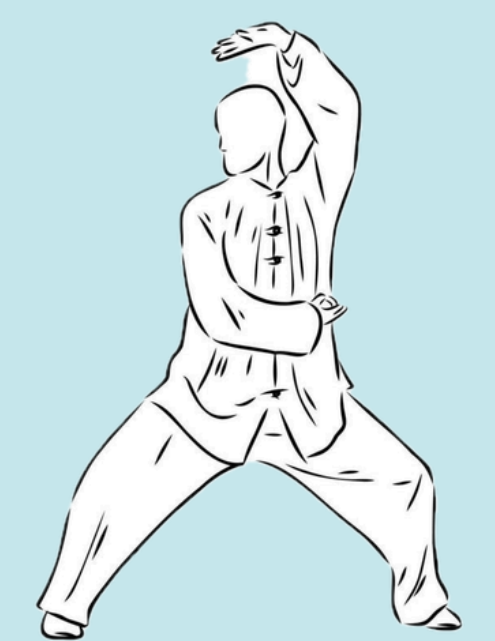


## RESULTS



Meditation and Mindfulness

- 12-week Virtual Reality based meditation program (30 min/week) including yoga, mindfulness, and martial arts (6).
  - Pain was measured using VAS: Post-session levels were lower than pre-session ( $P = 0.042$ ).
- 10-minute guided Virtual Reality meditation in hospitalized patients with opioid tolerance using a phone application → pain significantly reduced (7).
  - Mean pain score decreased from 6.68 (pre-intervention) to 3.36 (post-intervention).
  - No adverse effects related to the virtual reality intervention were reported.
- Review on mindfulness-based interventions for opioid misuse. MORE (Mindfulness-Oriented Recovery Enhancement) (8).
  - MORE: structured, group-based psychological treatment developed to help people with addiction, chronic pain, stress, and related emotional problems.
  - Showed greater reductions in pain intensity and interference vs. support groups
  - MORE group participants reported less desire for opioids.
  - MBIs significantly reduce the consumption of several substances, including opiates.



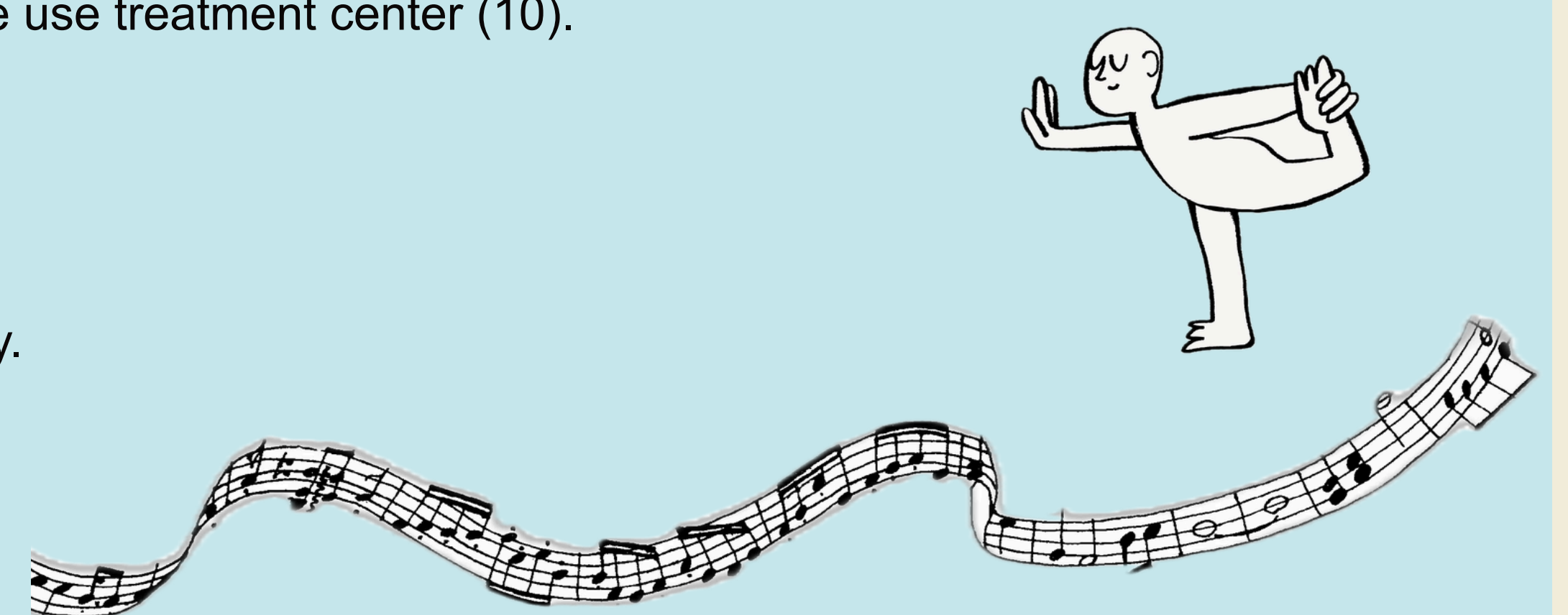
Exercise

- Exercise is positively and significantly associated with pain relief (9).
- Tai chi showed significant pain reduction (~30% increase in pain relief) (9).
  - Tai chi has also been shown to decrease substance use.
- Yoga improved bodily pain outcomes (9). Yoga interventions demonstrated significantly greater reductions in the percentage of days substances were used compared to control groups.
- Weekly intervention: one hour of yoga and one hour of pilates in a women's substance use treatment center (10).
  - pain scores decreased notably (3.65 → 1.60).



Music therapy

- Integrative review on music therapy in patients with opioid use disorder (11):
  - 73% of studies reported significant reductions in pain intensity after music therapy.
  - 59% showed decreased analgesic use.



## CONCLUSION

Pain management in patients with opioid use disorder requires alternatives beyond traditional opioid-based treatments. This review highlights the effectiveness of non-pharmacological approaches, particularly exercise, meditation, and music therapy. Nurses play a key role in implementing these strategies in clinical practice. Strengthening training in these interventions is essential to support holistic care addressing physical, emotional, and psychological needs. Further research is needed in this field.



SCAN ME

