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Long-Term Effects of HVLA and Exercise vs. Exercise Alone for Adults with Chronic LBP

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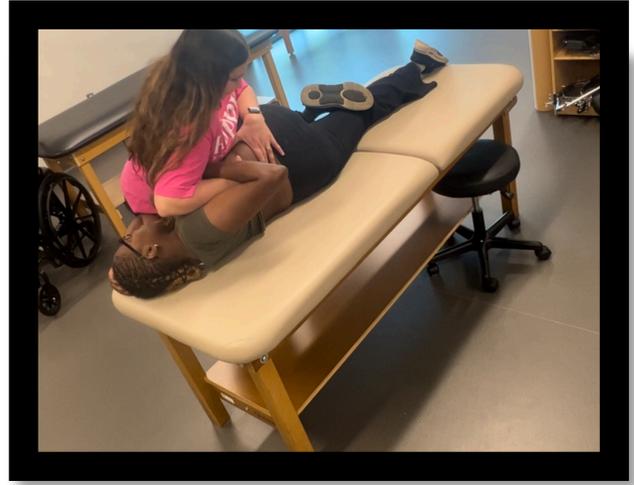
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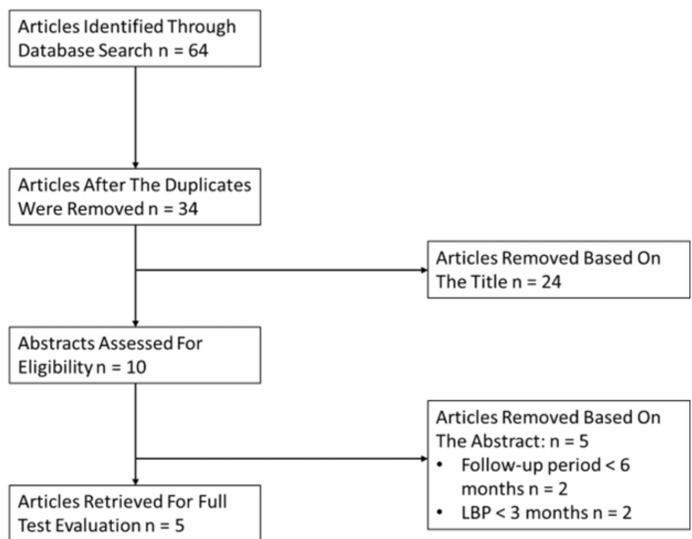
INTRODUCTION / PURPOSE

- ❖ Chronic low back pain is among the leading causes of disability globally and continues to have a high reoccurrence rate within the first year of treatment.^{1,2}
- ❖ The treatment cost of low back pain has become an increased burden on the healthcare system and patients at an estimated \$100 billion per year.^{3,4}
- ❖ With incidence and economic burden of LBP on the rise, physical therapy has been shown to be an efficient and cost-effective treatment.^{1,3,5,6}
- ❖ Previous research shows improvements to pain and function following HVLA mobilization and exercise in short-term outcomes (< 3 months)⁵, but there is limited evidence showing the long-term effects (> 6 months.)

PICO:
In adults with chronic low back pain, is HVLA mobilization combined with exercise more effective than exercise alone to improve pain and function in the long-term?



METHODS



Databases:
Medline, CINAHL, Pubmed

Search Terms:
Chronic, low back pain, spinal manipulation, exercise

Inclusion Criteria:
Chronic lower back pain > 3 months, age 18-75, general population, a follow-up period greater than or equal to 6 months

Exclusion Criteria:
Individuals older than 75, Acute LBP, Populations after back surgery or a diagnosis of neurological signs and symptoms, spondylolisthesis > second degree, spinal stenosis, lumbar scoliosis > 20 degrees, rheumatoid arthritis or spondylitis, or previous vertebral fractures

Non-general population

CLINICAL RELEVANCE

- ❖ Manual therapy combined with exercise showed a greater improvement for pain and function in the short term; however, at the >3 month follow ups, there was no significant difference between the groups for pain and function.
- ❖ Exercise seems to be the driving factor for pain reduction and functional improvements in the long term, but manual therapy can be an effective tool to decrease pain and improve function in the short-term.
- ❖ This CAT is consistent with the recommendations from the JOSPT CPG 2022 for LBP that supports manual therapy and exercise for patients with LBP.¹³

CONCLUSION

- ❖ The results among the 6 articles we chose to assess were inconsistent. We were unable to determine whether HVLA mobilization paired with exercise proved to be more effective in decreasing chronic LBP in the long-term versus exercise alone
- ❖ Most patients reported overall improvement in symptoms regardless of intervention. While HVLA mobilization proves to be effective in the short-term, further research should be performed to determine the long-term effect.

RESULTS

- 2 articles
 - Suggest spinal manipulation with exercise is more effective than exercise-based treatment alone after 6 months.^{7,8}
- 1 article
 - Compared spinal manipulation, back school, and physiotherapy.
 - Spinal manipulation had the greatest outcomes, but all three groups had clinically significant improvements in the long term.⁹
- 3 articles
 - Compared spinal manipulation alone with other methods of treatment.
 - No significant difference between spinal manipulation and other methods of treatment.^{10,11,12}

REFERENCES

