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### Health Professional Students Receiving Osteopathic Manipulative Treatment: An Interdisciplinary and Interprofessional Activity to Improve Attitudes Towards Osteopathic Medicine and Interprofessional Collaboration

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# Health Professional Students Receiving Osteopathic Manipulative Treatment: An Interdisciplinary and Interprofessional Activity to Improve Attitudes Towards Osteopathic Medicine and Interprofessional Collaboration



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## Background

- Strong interprofessional collaboration among osteopathic physicians (DO) and students (OMS) with other health professionals is integral to promoting tenants of osteopathic manipulative medicine (OMM) in patient care and osteopathic manipulative treatment (OMT) as a treatment modality.
- Past research in OMS and DO residents have demonstrated that clinical exposure to OMM increases positive attitudes towards OMM<sup>1,2</sup>, and comfort/confidence in understanding of OMM and discussion of OMM<sup>2,3</sup>, and likelihood of using OMT.
- There's limited research on the attitudes or understanding of OMM by other health professionals.

## Aims

This study aims to explore how receiving OMT (as a non-OMS professional student) by 2nd year OMS impacts:

- 1) Attitudes towards osteopathic medicine
- 2) Confidence relating to:
  - a) Understanding principles of OMM
  - b) Discussing principles of OMM with patients
  - c) Explaining OMM to someone unfamiliar with it
  - d) Recommending OMM as a pain management option
- 3) Interprofessional collaboration

## Methods

- **Participants:**
  - N = 30
  - Age (years): 67.7% 20-24, 23.3% 25-29, 10% ≥ 30
  - Sex: 93.3% Female, 6.7% Male
  - Race: 73.3% White, 16.7% Multiple, 3.3% Black/African American, 3.3% Asian, 3.3% Other
  - Professional program: 43.3% PA, 23.3% DMD, 16.7% DPT, 16.7% OTD
- **Procedure:**
  - Participants were recruited from Student Academy American Osteopathy sponsored interdisciplinary clinics
    - Participants were professional health students (e.g., PA, DMD, DOT, DPT) at Lincoln Memorial University
  - Participants received a brief introduction to OMM and were then examined and treated with OMT by a 2<sup>nd</sup> year OMS with supervising osteopathic physicians
  - Participants completed demographics/background information and pre- and post- measures for:
    - Attitudes Towards Osteopathic Medicine (ATOMS)<sup>4</sup> (range: 13-91, higher number = more positive attitudes)
    - Likert style questions (range: 0-10, 10 = very confident) for confidence relating to different applications of OMM
    - Interprofessional Attitudes Survey (IPAS)<sup>5</sup> subscales (range: 1-5): Teamwork, Roles, and Responsibilities (TRR), and Interprofessional Biases (IB)
- **Data Analyses:** Descriptive statistics and paired t-tests were completed with SPSS 29.

## Results

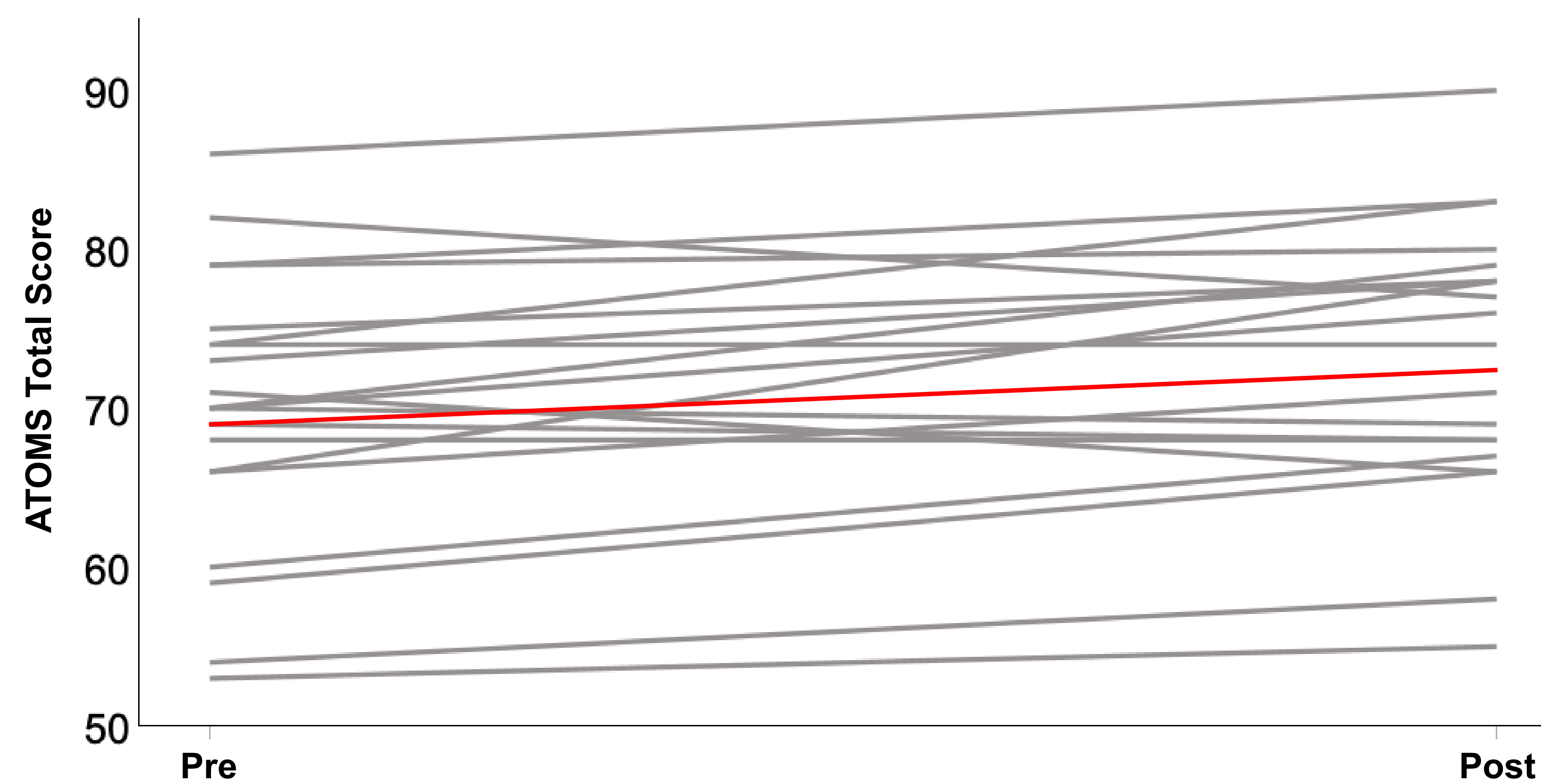


Figure 1. Pre/Post Change in ATOMS. Grey lines demonstrate individual pre/post total scores; red line demonstrates the group pre/post mean score.

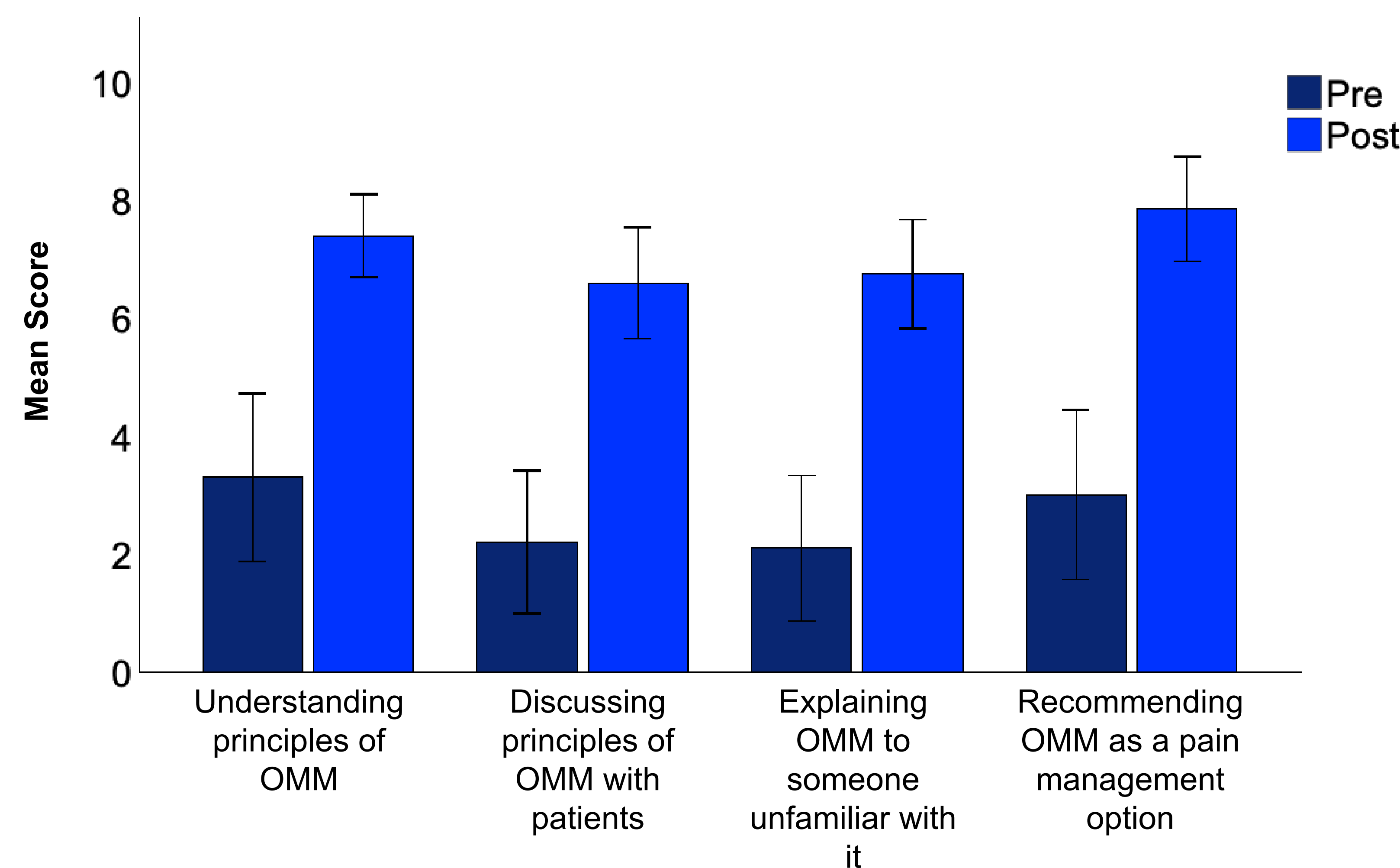


Figure 2. Confidence in different applications related to OMM. Error bars represent 95% CI.

ATOMS  
Hojat et al. 2021

Confidence in different applications related to OMM  
Adapted from  
Shapiro et al. 2017

IPAS  
Norris et al. 2015

## Results

- 20 participants complete both pre- and post-surveys (response rate = 66.7%).
- **Aim 1:**
  - Following OMT by 2<sup>nd</sup> year OMS in the interdisciplinary clinic, non-OMS professional students significantly improved their attitudes towards osteopathic medicine (69.90 ± 8.68 vs 73.20 ± 8.67;  $p = 0.004$ ) [Figure 1].
- **Aim 2:**
  - Following the interdisciplinary clinic, non-OMS experienced a significant increase in their confidence of: **a)** understanding OMM (3.30 ± 3.05 vs 7.40 ± 1.50,  $p < 0.001$ ), **b)** discussing principles of OMM with patients (2.20 ± 2.59 vs 6.60 ± 2.01,  $p < 0.001$ ), **c)** explaining OMM to someone unfamiliar with it (2.10 ± 2.63 vs 6.75 ± 1.97,  $p < 0.001$ ), and **d)** recommending OMM as a pain management option (3.00 ± 3.08 vs 7.85 ± 1.90,  $p < 0.001$ ) [Figure 2].
- **Aim 3:**
  - Following the interdisciplinary clinic, there were no statistically significant improvements in TRR (4.82 ± 0.25 vs 4.88 ± 0.19,  $p = 0.3$ ) and IB (3.58 ± 0.70 vs 3.62 ± 0.85,  $p = 0.9$ ).

## Discussion

- Results demonstrate preliminary support for non-OMS professional students receiving OMT in OMT interdisciplinary clinics to improve their attitudes towards OMM, and confidence in understanding of OMM or to engage in various conversations relating to OMM.
- Results support previous research that exposure to OMM improve attitudes towards OMM and comfort level around OMM
- Interdisciplinary clinics with OMS treating non-OMS could serve as an educational interprofessional activity to improve interprofessional collaboration and awareness of OMT as a treatment modality.
- Future directions include:
  - Recruitment of a larger and more diverse sample size
  - Exploration of positive and negative affect with study outcomes
  - Randomized controlled trial exploring acceptability, feasibility and preliminary efficacy of an interdisciplinary OMT clinic as an interprofessional educational activity

## References

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