“Introducing Allopathic Medical Students to Osteopathic Principles and Manipulative Techniques”

Christopher Frothingham, DO*; Kyle Wieschhaus, MS2; Jacqueline Greene, MS2; Joseph Nye, MA, MS2; Trent Reed, DO

Loyola University Chicago – Stritch School of Medicine
*University of New England – College of Osteopathic Medicine
DISCLOSURES

- We have no actual or potential conflict of interest in relation to this program/presentation.
AGENDA

- Objectives
- Motivation
- GME Merger
- Elective Design
- Results
- Conclusions
- Limitations
- Next Steps
OBJECTIVES

- **Objective 1**: Describe an elective curriculum structure to introduce allopathic medical students to osteopathic principles and manipulative treatment

- **Objective 2**: Analyze the limitations and challenges related to implementation of an introduction to osteopathic principles and manipulative treatment elective at an allopathic school

- **Outcome 1**: The attendee will be able to discuss a potential method to spread introductory osteopathic principles to allopathic medical students at their respective institutions.

- **Outcome 2**: The attendee will be able to recognize how an osteopathic elective at an allopathic medical school could expand understanding of osteopathic manipulative medicine, thereby expanding possibility of referrals.

- **Outcome 3**: The attendee will be able to understand limitations of implementing an osteopathic elective at an allopathic medical school.
MOTIVATION

- Student interest in osteopathy
- Large overlap in values between Loyola and Osteopathic Programs

<table>
<thead>
<tr>
<th>Jesuit Values</th>
<th>Tenets of Osteopathic Medicine</th>
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</thead>
<tbody>
<tr>
<td>“Unity of Heart, Mind, &amp; Soul: Developing the whole person and integrating all aspects of our lives”</td>
<td>“The body is a unit; the person is a unit of body, mind, and spirit”</td>
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<tr>
<td>“Cura Personalis: “Care for the individual person”</td>
<td>“Rational treatment is based upon an understanding of the basic principles of body unity […]”</td>
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<tr>
<td>Hippocratic Oath: “First, do no harm”</td>
<td>Benefits of OMT allowing body to “heal itself” as a pharmaceutical free option.</td>
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</table>

- Feeling “under-equipped” compared to osteopathically trained counterparts who have an extra tool in their tool box with OMT
RELEVANT LITERATURE

- GME Level and beyond

- Little to nothing at UME level

    - Implemented at Family Medicine Residency, as 3-month integration into PGY-1
    - Allopathic Residency

    - History

    - Validated Teacher-Student Ratio → 1:8
ACGME-AOA MERGER

Before Merger

MD Students

DO Students

“MD”
ACGME Residency

“DO”
AOA Residency

After Merger

MD Students

DO Students

Formerly “MD”
Osteopathic Recognition
Single Accreditation - ACGME

Formerly “DO”
### Osteopathic Recognition

Osteopathic Recognition: the formal term for prior osteopathic training as it applies to residency, is a designation given to a specific residency program that wishes to maintain their osteopathic focus after the merger.
**ELECTIVE DESIGN**

- **Pretest**
  - Synchronous
  - Multiple choice assessment
  - Pretest questionnaire

- **Knowledge Acquisition**
  - Asynchronous
  - Video podcasts
    - Background, theory, indications
  - Video technique demonstration
    - Youtube
  - Readiness Assurance Tests

- **Skills Training**
  - Synchronous
  - Review of online material
  - Instruction via live streaming
  - Deliberate practice: hands-on training
  - Realtime feedback from DOs

- **Posttest**
  - Week 5
  - Synchronous
  - Multiple choice assessment
  - Posttest questionnaire
  - Case discussion via live streaming/recording
  - Clinical assessment by DOs
    - Diagnose and treat 2 dysfunctions

- Week 1: Osteopathic history and philosophy, structural exam basics
- Week 2: Soft tissue, lymphatics
- Week 3: Myofascial release (balanced ligamentous tension, counter-strain)
- Week 4: Muscle energy, high velocity low amplitude
TOOLS USED

SURVEY QUESTIONS

- Knowledge
  - “Please rate your ability to…”
  - Palpatory Dx
  - HVLA, Soft tissue, Lymphatics
  - Direct vs Indirect

- Skills
  - “Please rate your ability to…”
  - Perform Structural Exam
  - Test for restricted ROM

- Attitudes
  - Residency selection, Referrals, etc

- All 1-5 Likert

- Practical Skills Checklist (more detail to come)

MCQ

- “Which of the following is the typical sequence for lymphatic treatment?”

- “Soft/elastic barriers can typically be treated with _____ and are due to hypertonic musculature, while hard/firm barriers are most often treated with _____?”

- Multiple Choice, with 4 possible answers for each
RESULTS

If you were starting residency tomorrow at a residency program with Osteopathic Recognition, how would you feel about your current fundamental understanding of Osteopathic Principles?
RESULTS

If you had to choose a residency program today, how likely would you be to apply to a residency position with osteopathic-focused education in a residency program with Osteopathic Recognition?
Imagine that you are currently a practicing physician. How likely are you to refer a patient of yours to an Osteopathic physician for the purpose of Osteopathic Manipulative Treatment?
RESULTS

**Improvement in MCQ Performance**

- **Pretest**: 14.32
- **Posttest**: 26.79
- *p* < 0.001
RESULTS

- **85.8%** of students agree or strongly agree that after taking this elective, they have reinforced previously learned anatomical knowledge.

- **92.8%** of students agree or strongly agree that after taking this elective, they are more comfortable with the musculoskeletal assessment of their patients.
Clinical Skills Checklist

<table>
<thead>
<tr>
<th>TART/Osteopathic Structural Exam Findings</th>
<th>Not Examined</th>
<th>No Significant Findings</th>
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<tbody>
<tr>
<td>Gait</td>
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<tr>
<td>Cervical</td>
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<td>Lumbar</td>
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Somatic Dysfunction #1
Which somatic dysfunction was treated ____________________________
Which method of treatment was used ____________________________
Was the dysfunction reassessed (Y/N) ____________________________

Somatic Dysfunction #2
Which somatic dysfunction was treated ____________________________
Which method of treatment was used ____________________________
Was the dysfunction reassessed (Y/N) ____________________________

Global assessment: Did the student demonstrate adequate introductory osteopathic structural exam skills (Y/N) & osteopathic manipulative treatment skills (Y/N)?

Notes/Comments:

- All students in this elective passed the osteopathic clinical skills assessment.
CONCLUSIONS

- Students demonstrated significant improvement in core osteopathic knowledge from MCQ pre-test to post-test.

- Students displayed absorption of osteopathic manipulative examination and treatment as evidenced by passing their final practical examination.

- Students attitudes towards osteopathic medicine have become more favorable as well as their perceptions of their own knowledge and skills.

- Follow up Survey Questions
LIMITATIONS

RESEARCH
- Single Institution
  - Like-minded allopathic institution
- Same Pre-test/Post-test
- Selection bias
  - Volunteer basis – only interested students enrolled

COURSE DESIGN & PORTABILITY
- Time
- Curricular implementation logistics
  - Technical Difficulties (UNECOM)
  - Clinical Skills lab (Loyola)
NEXT STEPS

- Track:
  - Retention of knowledge
  - Residency placements
- More Longitudinal Experience
  - TA’s
  - Facilitate OMM Rotations
REFERENCES


QUESTIONS
Contact Information

• Jacqueline Greene, MS2
  – jgreene4@luc.edu

• Christopher Joseph Nye, MA, MS2
  – cnye@luc.edu

• Kyle Wieschhaus, MS2
  – kwieschhaus@luc.edu

• Dr. Trent Reed, DO, FACEP
  – TREED1@lumc.edu

• Dr. Chris Frothingham, DO
  – cfrothingham@une.edu