



# OSTEOPATHIC MANIPULATIVE THERAPY: EARLY ADOPTER ALLOPATHIC RESIDENT PHYSICIANS

INSIGHTS TO INFORM CURRICULUM DEVELOPMENT

AOGME Webinar Series: Osteopathic Recognition  
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**DeAundre Dyer D.O., Justin Stumph D.O., Sandra Snyder D.O.** , Carl Tyler M.D., Kelly Raj D.O.  
Cleveland Clinic Family Medicine Residency Program

## OBJECTIVES

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To identify characteristics of allopathic residents with high interest in learning and practicing osteopathic medicine

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To clarify what motivates allopathic residents to learn osteopathic medicine

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To determine what factors promote and impede their learning and incorporating osteopathic medicine in their clinical practice

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To generate recommendations regarding curriculum development and practice operations that will foster allopathic resident adoption of osteopathic clinical practices

# BACKGROUND: COMPARED APPROACHES

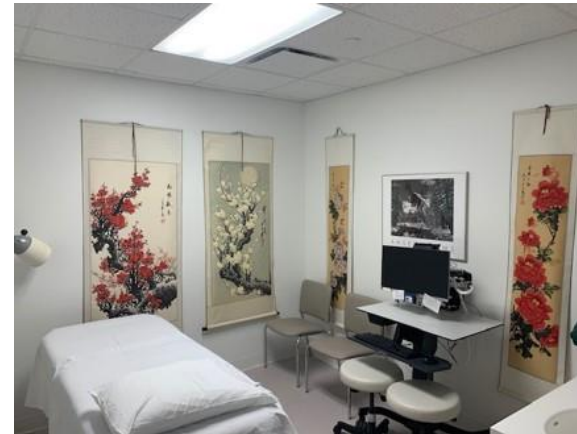
## Track Approach

- Voluntarily "opt in"
- Dedicated or protected time
- Usually compete with other academic interests, I.e. Global health, obstetrics, informatics, integrative medicine etc



## Integrated Approach

- Osteopathic philosophy integrated into all
- Integration into the lecture schedule
- Huge learning curve for allopathic physicians, which can be intimidating and lower likelihood to practice



# INTEGRATED APPROACH

As a part of orientation for allopathic residents, they attend an "Osteopathic Medicine for All" primer

Four hour focused session in their third month of residency

Monthly, resident led, "Find it, Fix it" labs

Quarterly osteopathic lectures led by faculty and program graduates on the osteopathic approach to common primary care complaints

Daily application on inpatient/outpatient rotation; Primary pain intervention

Integration of the four osteopathic tenets into our case conference and root cause analyses

Osteopathic manipulative therapy evaluation by osteopathic residency director

# BACKGROUND: THE FUTURE IS NOW


In 2014, the Accreditation Council for Graduate Medical Education (ACGME), the American Osteopathic Association (AOA), and the American Association of Colleges of Osteopathic Medicine (AACOM) announced an agreement to pursue a single graduate medical education (GME) accreditation system




In 2015, residencies were able to seek Osteopathic recognition



As of December 2019, 215 programs had achieved osteopathic recognition<sup>9</sup>



2020 marked the first combined match since the transition to a single graduate medical education accreditation system



June 2020, AOA will no longer accredit residency or fellowship programs

## BACKGROUND: THE FUTURE IS NOW

Of the 115,992 total active residents, 19,400 (16.7%) are osteopathic medical school graduates

Allopathic resident physicians vary in their interest and exposure to osteopathic medicine

One potential challenge is refining curricula that satisfies osteopathic recognition and engages allopathic physicians unfamiliar with osteopathic principles and practice

We hypothesize that greater than 50% of "early adopters" residents are likely to report they intend to use osteopathic manipulative therapy as a part of their service array, after residency

## EARLY ADOPTER: WORKING DEFINITION

- An early adopter is an allopathic physician who has begun to incorporate the themes and treatment paradigms of osteopathic medicine into their clinical practice and/or
- utilized an osteopathic manipulative technique, in an inpatient or outpatient setting and/or
- initiated a referral for osteopathic manipulative therapy as a treatment modality
- Currently there are 10 allopathic residents in the Cleveland Clinic Family Medicine Residency; all meet early adopter criteria



# RESEARCH PROCEDURE

- A survey consisting of 27 questions
  - Knowledge of osteopathic physicians
  - Anticipated medical practice
  - The use of OMT
  - Time available to perform OMT
  - Curriculum
  - Faculty
  - Program support
  - Prospect of continuing the OMT practice post residency
- The 27 question survey was administered via REDCap, anonymously
- The surveys were not formally validated prior to administration
- The survey questions are a compilation of questions derived from two source studies:
  - 10 questions are from 12/2005 study Survey of Osteopathic and Allopathic Residents' Attitudes Toward Osteopathic Manipulative Treatment. Conducted by Brian A. Allee, DO; Michael H. Pollak, PhD; Karen F. Malnar, RN
  - 17 questions are from 4/2018 study regarding Resident and Faculty Attitudes Toward Osteopathic-Focused Education. Conducted by Hempstead LK, Rosemergy B, Foote S, Swade K, Williams KB.
- Following this, we conducted a semi structured interview with four short answer questions
- We utilized SPSS software and redcap to generate frequency charts and correlation coefficients to derive population characteristics



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# RESEARCH PROCEDURE- OUTCOMES

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## ■ I intend to use OMT when I am in practice

- Strongly Agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly Disagree

## ■ To what extent do you feel OMT is effective for somatic dysfunction?

- Very effective
- Somewhat effective
- Not effective

## ■ Rank the importance of OMT in improving relationships with patients

- Extremely important
- Very important
- Somewhat important
- Neutral/unsure
- Not important

## ■ To what extent do you feel OMT is effective for systemic illness (eg. asthma?)

- Very effective
- Somewhat effective
- Not effective

# RESEARCH PROCEDURE- PRIOR TO RESIDENCY

■ **How familiar were you with osteopathic manipulative treatment (OMT) before medical school?**

- Very familiar
- Somewhat familiar
- Unfamiliar

■ **One of the reasons I chose this residency program is the ability to practice OMT and improve my OMT skills?**

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly Disagree

■ **To what extent were you exposed to OMT during medical school?**

- Lectures
- Demonstrations
- Reading
- Personal Experiences
- None

# RESEARCH PROCEDURE- DURING RESIDENCY (CONT'D)

■ **To what extent were you exposed to OMT during residency?**

- Lectures
- Demonstrations
- Readings
- Personal experiences
- None

■ **To what extent are you interested in learning how to perform OMT?**

- Very interested
- Somewhat interested
- Not Interested

■ **I am familiar with the basic tenets of Osteopathic Principles and Practice (OPP)**

- Strongly Agree
- Agree
- Neither agree nor disagree
- Strongly Disagree

# RESEARCH PROCEDURE- DURING RESIDENCY

▪ **I have seen OMT performed in a patient or a peer**

- Within the past month
- 1-6 months ago
- > 6 months ago
- No

▪ **I perform OMT on patients**

- Within the past month
- 1-6 months ago
- >6 months ago
- No

▪ **During your residency training, how important is it for you to gain hands on OMT skills in residency training?**

- Extremely important
- Very important
- Somewhat important
- Neutral/unsure
- Not important

# RESEARCH PROCEDURE- DURING RESIDENCY (CONT'D)

▪ **During your residency training, how important is it for you to learn how to integrate OMT into an office practice setting?**

- Extremely important
- Very important
- Somewhat important
- Neutral/unsure
- Not important

▪ **I am more aware of OPP, including awareness of OMT, than I was a year ago**

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly agree

▪ **During your residency training, how important is it for you to learn OMT billing and coding**

- Extremely important
- Very important
- Somewhat important
- Neutral/unsure
- Not important

# RESEARCH PROCEDURE- RESIDENCY RESOURCES, INFRASTRUCTURE & CULTURE

Osteopathic recognition, including the osteopathic curriculum, is one of the strengths of this residency program

- Strongly agree
- Agree
- Neither agree nor disagree
- disagree

I have attended didactic sessions during which OPP have been discussed

- Within the past month
- 1-6 months ago
- >6 months ago
- No

There are enough opportunities to learn OPP in my residency program

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

I am satisfied with faculty support of OMT and OPP in this residency program

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

The culture at this program is supportive of OPP

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

# RESEARCH PROCEDURE- RESIDENCY RESOURCES, INFRASTRUCTURE & CULTURE (CONT'D)

**I am satisfied with the quality of osteopathic education I receive at this residency program**

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

**Rank the importance of the ability to work with faculty trained in osteopathic manipulative treatment**

- Extremely important
- Very important
- Somewhat important
- Neutral/unsure
- Not important

**Rank the importance of camaraderie with osteopathic residents within your program**

- Extremely important
- Very important
- Somewhat important
- Neutral/unsure
- Not important

# RESEARCH PROCEDURE- CURRICULA & POLICY ISSUES

**Should OMT be incorporated into allopathic medical school curricula?**

- Strongly support
- Support
- Neutral
- Oppose

**Would you be interested in more OMT CME geared toward teaching allopathic resident physician?**

- Very interested
- Somewhat interested
- Not interested

**Do you feel the American Osteopathic Association should provide certification for MDs who have tested proficient in the use of OMT?**

- Strongly support
- Support
- Neutral
- Oppose



# RESEARCH PROCEDURE

## Early Adopters Short Answer

ID Number:

1. How did you get interested in learning and practicing **osteopathic manipulative treatment (OMT)**?
2. In what ways will proficiency in OMT enhance your practice?
3. What are barriers to gaining proficiency in OMT during residency? After residency?
4. What educational strategies and practice supports in residency would be most effective in assuring your use of OMT after graduation from residency?

# RESEARCH PROCEDURE

- Barriers to the study
  - Institutional review board was opposed to a videotaped interview
    - Requested audio with transcription, in lieu of videotaping
    - High time burden
  - Paper surveys
    - Unique ID assigned by an individual to each survey, as it could be a means of identification
    - Storage consideration
    - Transcription errors
- Response to barrier
  - REDCap
  - Focus group

# DATA ANALYSIS

Pearson Correlation	I intend to use OMT when I am in practice
• Rank the importance of OMT in improving relationships with patients	.638
• To what extent are you interested in learning how to perform OMT?	.681
• Rank the importance of camaraderie with other DOs	.681
• Rank the importance of learning OMT billing and coding	.693
• Rank the importance of the ability to work with DO faculty	.724
• Should OMT be incorporated into allopathic medical school curricula?	.728
• Rank the important of learning to integrate OMT into an office practice setting	.768
• One of the reasons I chose this residency program is the ability to practice OMT and improve my OMT skills	.795
• Rank the important of maintaining hands on OMT skills	.830

Correlation is significant at the 0.05 level (2 tailed)

N= 10

# DATA ANALYSIS

How familiar are you with OMT before medical school?

- 50% somewhat familiar
- 50% unfamiliar

To what extent were you exposed to OMT during school?

- 20% personal experience
- 80% no experience

To what extent were you exposed to OMT during residency?

- 50% through lectures
- 40% through demonstrations
- 10% personal experience

# DATA ANALYSIS

To what extent do you feel OMT is effective for somatic dysfunction?

- 60% very effective
- 40% somewhat effective

To what extent do you feel OMT is effective for systemic illness (eg asthma)

- 20% very effective
- 60% somewhat effective
- 20% not effective

To what extent are you interested in learning how to perform OMT?

- 90% very interested
- 10% somewhat interested

# DATA ANALYSIS

Should OMT be incorporated into allopathic medical school curricula?

- 50% strongly support
- 40% supportive
- 10% neutral

Would you be interested in more OMT CME geared toward teaching allopathic resident physicians?

- 80% very interested
- 20% somewhat interested

Do you feel the AOA should provide certification for MDs who have tested proficient in the use of omt?

- 90% strongly support
- 10% support

# DATA ANALYSIS

I am familiar with the basic tenets of Osteopathic Principles and Practice

- 10% strongly agree
- 80% agree
- 10% neither agree nor disagree

I have seen OMT performed on a patient or a peer.

- 70% within the past month
- 30% 1-6 months ago

I perform OMT on patients.

- 40% within the past month
- 30% 1-6 months ago
- 30% have not performed OMT

# DATA ANALYSIS

During your residency training, how important is it for you to gain hands on OMT skills

- 30% extremely important
- 50% very important
- 10% somewhat important
- 10% neutral/unsure

During your residency training, how important is it for you to learn how to integrate OMT into an office practice setting?

- 40% extremely important
- 40% very important
- 10% somewhat important
- 10% neutral/unsure

During your residency training how important is it for you to learn OMT billing and coding?

- 20% extremely important
- 60% very important
- 10% somewhat important
- 10% Neutral/unsure



# DATA ANALYSIS

I intend to use OMT when I am in practice.

- 20% strongly agree
- 70% agree
- 10% neither agree nor disagree

One of the reasons I chose this residency program is the ability to practice OMT and improve my OMT skills.

- 30% strongly agree
- 20% agree
- 30% neither agree nor disagree
- 10% disagree
- 10% strongly disagree

Osteopathic recognition, including the osteopathic curriculum, is one of the strengths of this residency program.

- 30% strongly agree
- 50% agree
- 20% disagree

# DATA ANALYSIS

I have attended didactic sessions during which OPP have been discussed.

- 40% within the past month
- 60% 1-6 months ago

There are enough opportunities to learn OPP in my residency program

- 30% strongly agree
- 60% agree
- 10% strongly disagree

I am more aware of OPP, including awareness of OMT than I was a year ago.

- 70% strongly agree
- 20% agree
- 10% disagree

# DATA ANALYSIS

I am satisfied with faculty support of OMT an OPP in this residency program.

- 30% strongly agree
- 50% agree
- 20% neither agree nor disagree

The culture at this program is supportive of OPP.

- 70% strongly agree
- 20% agree
- 10% neither agree nor disagree

I am satisfied with the quality of osteopathic education I receive at this residency program.

- 30% strongly agree
- 40% agree
- 10% neither agree nor disagree
- 10% disagree
- 10% strongly disagree

# DATA ANALYSIS

Rank the importance of the ability to work with faculty trained in OMT.

- 20% extremely important
- 60% very important
- 10% somewhat important
- 10% not important

Rank the importance of OMT in improving relationship with patients.

- 30% extremely important
- 30% very important
- 20% somewhat important
- 10% neutral/unsure
- 10% not important

Rank the importance of camaraderie with osteopathic residents within your program.

- 90% extremely important
- 10% somewhat important

## SHORT ANSWER FEEDBACK

How did you become interested in learning and practicing osteopathic manipulative therapy (OMT)?

- Applied to osteopathic and allopathic medical schools
- Introduced as medical student, via a lecture from an osteopathic physician
- Lecture at a conference
- Emphasized during the interview process, they familiarized themselves prior to starting

## In what ways will proficiency in OMT enhance your practice?

- Enhance your musculoskeletal exam
- Offering a patient an alternative pain management plan
  - Back pain
  - Migraines
  - Sinusitis
- Medication stewardship
- Physical touch helps strengthen patient/physician bond
- Patients feel heard practicing under an osteopathic model

SHORT ANSWER  
FEEDBACK

## What are the barriers to gaining proficiency in OMT during residency? After residency?

- Time
- Not enough opportunities to practice
- Too much, too soon, needed more time to develop basic palpatory skills
- No previous frame of reference to contextualize concepts
  - Residents with previous Physical Medicine and Rehabilitation or Sports Medicine rotations in medical school expressed higher comfort
- Flexibility in the required depth
  - Expressed wanting to gain proficiency in 6 techniques they feel are most value added
  - Discussed repeated curriculum yearly to reinforce specific techniques (Currently we have biennial curriculum)

SHORT ANSWER  
FEEDBACK

## SHORT ANSWER FEEDBACK

What strategies and practice supports in residency would be most effective in assuring your use of OMT after graduation from residency?

- Yearly refresher for graduates
- Expansion of OMT inpatient service
- Knowing you are entering an office culture that is open to OMT
- Removing paneling barriers in each state
- Year end program retreat
- A point of care guide for graduating seniors

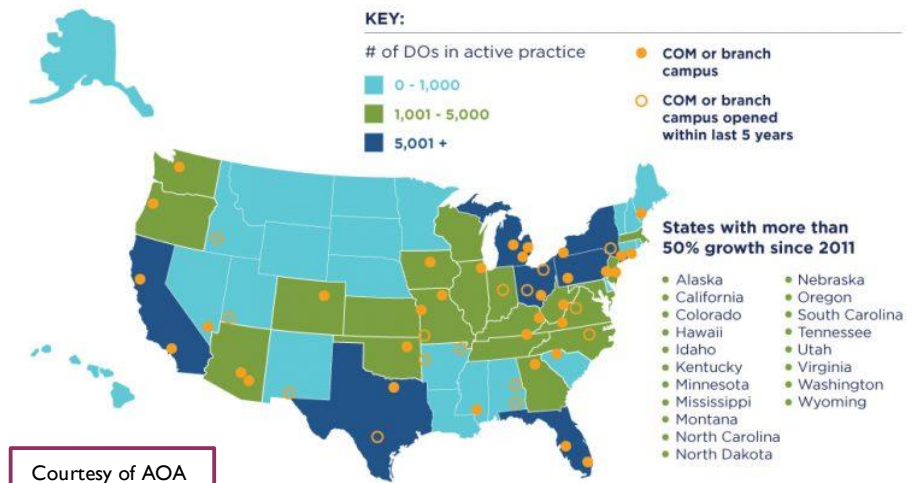


# DISCUSSION: REEVALUATE THE BAR

## Non osteopathic physician Requirements

- 120-200 hours of formal training in Osteopathic Principles and practices, including application of OMT
- Letters describing their specific interest in an Osteopathic recognition program
- Core Osteopathic Recognition Readiness examination
  - 100 questions
  - 3 hours
  - \$299
- Letter of recommendation from an osteopathic physician who utilizes osteopathic principles and practices, including OMT, in their practice

## Osteopathic physicians in practice



## DISCUSSION: EARLY ADOPTER CHARACTERISTICS

- 80% of the allopathic residents had no exposure to osteopathic manipulative treatment in medical school while the other 20% of allopathic residents had exposure via lectures and demonstrations during medical school
- All allopathic residents either supported or strongly supported the idea of the American Osteopathic Association providing a certificate of competence for allopathic physicians
- Most felt that osteopathic manipulative therapy was either effective or somewhat effective in somatic dysfunction and systemic illness
- All PGY-2 and PGY-3 early adopters are also in our integrative medicine track
- Other research shows female physicians tend to have a more favorable attitude toward osteopathic manipulative therapy and its ability to enhance medical practice<sup>2</sup>

# DISCUSSION: PRACTICE LOGISTICS

## 01

Most allopathic residents agreed they planned to use osteopathic manipulative therapy in practice

## 02

2003, Dr. Raymond Roberge investigated barriers to use of osteopathic manipulative therapy

- Time
- Reimbursement
- Physician insecurity

## 03

Our focus group revealed similar barriers and ideas to address these barriers

- Billing and coding curriculum
- Yearly OMT retreats
- Access to local medical school OMT curriculum
- Physician modeling opportunities

# DISCUSSION: BILLING AND CODING CURRICULUM

Most residents felt it was important to incorporate OMT billing and coding into their curriculum

Residency programs lose \$10,000-400,000 due to inaccurate billing<sup>3</sup>

## Programmatic response to barriers

- Introduction to billable and coding
- Hospital and office integration as a part of technique
- Quarterly review of resident trends versus attending/national trends
- Management of healthcare systems
- Career Options/Job Search, Contract Negotiation, licensing, hospital privileges
- Staff and Personnel Management
- Practice Operations/PCMH Model
- Health Care Risk Contracting/Value-Based Payment Models
- Practice Finance, Accounting, and Productivity
- Billing/Account Receivable Management
- Personal Financial Management
- Federal laws pertaining to medical practice (CLIA, OSHA, Stark II, Fraud and Abuse, HIPAA) and the US healthcare system Medico legal aspects of medical practice

# DISCUSSION

	<b>Low Reward</b>	<b>High Reward</b>
High Effort	Limit residency candidates to allopaths with preexisting interest in OPP	Individually tailored OMT curriculum based on competency & interest OMT inpatient consult team Removing institutional barriers to OMT practice
Low Effort	Assigned reading Infrequent lecture based curriculum	3 Day onboarding for allopathic interns Osteopathic resident physician led peer teaching Accessing osteopathic local med school activities

# SUMMARY

## Allopathic residents that seem to thrive

- Previous exposure is not necessary
- Have a belief in American Osteopathic Association certification
- Have a belief in the role of osteopathic manipulative therapy in systemic illness

## Allopathic residents report a higher likelihood of OMT in practice if:

- They had frequent opportunities to practice
- They come into residency with an open mind and seek to improve their OMT skills
- They have a curriculum they emphasizes how to integrate OMT in the office setting

## For allopathic residents, osteopathic recognition is secondary to other programmatic features<sup>12</sup>

- Programs prestige
- Programs' research opportunities

# CITATIONS

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