In this issue:

View From the Pyramids: Osteopathic Holism for the Specialty Minded ......................... 5

47th annual Thomas L. Northup Lecture Transitions: Our Own, Our Patients’, Our Profession’s ....................... 7


Introducing Short Lever Still Technique, a New Variant ............... 31
The American Academy of Osteopathy is your voice...

in teaching, promoting, and researching the science, art, and philosophy of osteopathic medicine, with the goal of integrating osteopathic principles and osteopathic manipulative treatment in patient care.

If you are not already a member of the American Academy of Osteopathy (AAO), the AAO Membership Committee invites you to join the Academy as a 2019-20 member. The AAO is your professional organization. It fosters the core principles that led you to become a doctor of osteopathic medicine.

For $5.83 a week or just 83 cents a day, you can become a member of the professional specialty organization dedicated to you and neuromusculoskeletal medicine/osteopathic manipulative medicine (NMM/OMM).

Your membership dues provide you with:

• a national advocate for OMM, both within the profession and with health care policymakers and third-party payers.
• a champion that is monitoring closely and responding rapidly to the standards being developed for the single accreditation system for graduate medical education.
• referrals of patients through the “Find a Physician” tool at FindOMM.org.
• discounts on continuing medical education at the AAO’s annual Convocation and its weekend courses.
• access to NMM/OMM specialty-specific continuing medical education opportunities.
• networking opportunities with peers.
• discounts on books in the AAO’s online store.
• complimentary subscription to The AAO Journal, published electronically 4 times annually.
• complimentary subscription to the online AAO Member News, published 8 times annually.
• weekly OsteoBlast e-newsletters, featuring research on manual medicine from peer-reviewed journals around the world.
• practice promotion materials, such as the AAO-supported “American Health Front” segment on OMM.
• discounts on advertising in AAO publications and in materials for the AAO’s Convocation.
• the fellow designation of FAAO, which recognizes DOs for promoting OMM through teaching, writing, and professional service and which is the only earned fellowship in the osteopathic medical profession.
• promotion and grant support of research on the efficacy of OMM.
• support for the future of the profession through the Student American Academy of Osteopathy, the National Undergraduate Fellows Association, and the Resident American Academy of Osteopathy.

If you have any questions regarding membership or membership renewal, contact Bev Searcy, the AAO’s finance and membership assistant, at BSearcy@academyofosteopathy.org or at (317) 879-1881, ext. 212.

AAOJ Call for Submissions

Time is precious and article writing is often triaged for busy physicians. In an effort to help guide the journal and stimulate interest in academic and scholarly activity, we are providing some broad topics that can be “reserved” for you. These are by no means the only topics for the journal, but it helps to eliminate the writer’s block that so many of us may face.

Below are topics available to reserve if you would like to support your portfolio with academic writing:

• Osteopathic approaches to treating patients with pelvic dysfunctions
• Osteopathic approaches for the cardiac patient
• The body triune: osteopathic treatment of mind and spirit for today’s patient
• Beyond Spencer technique: OMT for shoulder overuse
• Using OMT to treat patients with long-term side effects of radiation for cancer treatment

If you are interested in any of these topics, send an email to communications@academyofosteopathy.org and reserve your topic today. Manuscripts should be emailed to editoraaoj@gmail.com within three months of reserving a topic. See the AAOJ’s Instructions for Contributors for more information on submitting manuscripts.

In addition, we are asking for peer reviewers to assist us in producing the best journals we can, so please contact the AAO Publications Administrator at communications@academyofosteopathy.org if you can help in this capacity. No experience is required, and training resources will be provided. Peer reviewers are expected to review at least two manuscripts per year.

If you have any questions, please email us at editoraaoj@gmail.com.
View From the Pyramids: Osteopathic Holism for the Specialty Minded

Janice Upton Blumer, DO, FAAO

Original Research

47th annual Thomas L. Northup Lecture
Transitions: Our Own, Our Patients’, Our Profession’s

Doris B. Newman, DO, FAAO

Osteopathic Manipulative Medicine in the Era of the Single Accreditation System:
Can the Past Guide the Way to the Future of OMM?

David M. Kanze, DO, FAAO

Clinical Practice

Introducing Short Lever Still Technique, a New Variant

Richard L. Van Buskirk, DO, PhD, FAAO

Regular Features

AAOJ Submission Checklist
AAO Calendar of Events
CME Certification of Home Study
Upcoming CME
Component Society Calendar of Events

The mission of The AAO Journal is to facilitate a forum, with a sense of belonging, ensuring the opportunity for the present osteopathic community and its supporters to honor past accomplishments, promote the osteopathic tenets, and advance osteopathic research and its influence within the medical field.
AAOJ Submission Checklist

Manuscript Submission

☐ Submission emailed to editoraaoj@gmail.com or mailed on a flash drive or CD to the AAOJ managing editor, American Academy of Osteopathy, 3500 DePauw Blvd, Suite 1100, Indianapolis, IN 46268-1136

☐ Manuscript formatted in Microsoft Word for Windows (.doc, .docx), text document format (.txt), or rich text format (.rtf)

Manuscript Components

☐ Cover letter addressed to the AAOJ’s editor-in-chief with any special requests (eg, rapid review) noted and justified

☐ Title page, including the authors’ full names, financial and other affiliations, and disclosure of financial support related to the original research or other scholarly endeavor described in the manuscript

☐ “Abstract” (see “Abstract” section in “AAOJ Instructions for Contributors” for additional information)

☐ “Methods” section
  • the name of the public registry in which the trial is listed, if applicable
  • ethical standards, therapeutic agents or devices, and statistical methods defined

☐ Four multiple-choice questions for the continuing medical education quiz and brief discussions of the correct answers

☐ Editorial conventions adhered to
  • terms related to osteopathic medicine used in accordance with the Glossary of Osteopathic Terminology
  • units of measure given with all laboratory values
  • on first mention, all abbreviations other than measurements placed in parentheses after the full names of the terms, as in “American Academy of Osteopathy (AAO)”

☐ Numbered references, tables, and figures cited sequentially in the text
  • journal articles and other material cited in the “References” section follow the guidelines described in the most current edition of the AMA Manual of Style: A Guide for Authors and Editors
  • references include direct, open-access URLs to posted, full-text versions of the documents, preferably to digital object identifiers (DOIs) or to the original sources
  • photocopies provided for referenced documents not accessible through URLs

☐ “Acknowledgments” section with a concise, comprehensive list of the contributions made by individuals who do not merit authorship credit, as well as permission from each individual to be named

☐ For manuscripts based on survey data, a copy of the original validated survey and cover letter

Graphic Elements

☐ Graphics formatted as specified in the “Graphic Elements” section of “AAOJ Instructions for Contributors”

☐ Graphics as separate graphic files (eg, jpg, tiff, pdf)

☐ Each graphic element cited in numerical order (eg, Table 1, Table 2 and Figure 1, Figure 2) with corresponding numerical captions provided in the manuscript

☐ For reprinted or adapted tables, figures, and illustrations, a full bibliographic citation given, providing appropriate attribution

Required Legal Documentation

☐ For reprinted or adapted tables, figures, and illustrations, copyright holders’ permission to reprint in the AAOJ’s online and print versions, accompanied by photocopies of the original published graphic designs

☐ For photographs in which patients are featured, signed and dated patient-model release forms

☐ For named sources of unpublished data and individuals listed in the “Acknowledgments” section, written permission to publish their names in the AAOJ

☐ For authors serving in the US military, the armed forces’ written approval of the manuscript, as well as military or other institutional disclaimers

Financial Disclosure and Conflict of Interest

Authors are required to disclose all financial and nonfinancial relationships related to the submission’s subject matter. All disclosures should be included in the manuscript’s title page. See the “Title Page” section of “AAOJ Instructions to Contributors” for examples of relationships and affiliations that must be disclosed. Those authors who have no financial or other relationships to disclose must indicate that on the manuscript’s title page (eg, “Dr. Jones has no conflict of interest or financial disclosure relevant to the topic of the submitted manuscript”).

Publication in the JAOA

Please include permission to forward the manuscript to The Journal of the American Osteopathic Association if the AAOJ’s editor-in-chief determines that the manuscript would likely benefit osteopathic medicine more if the JAOA agreed to publish it.

Questions? Contact editoraaoj@gmail.com.
I was exploring the idea of the osteopathic specialist and thinking how to best help students understand that they do not need to give up their osteopathic roots when they choose to go into a specialty residency, when I came across the works of Phillip Greenman, DO, FAAO and his essay on this topic half a century ago.

In his essay written for the *Journal of the American Osteopathic Association* entitled “The Osteopathic Concept in its Second Century: Is it Still Germaine to Specialty Practice?” Dr. Greenman states:

“Osteopathic medical students frequently state that they are unable to ascertain how osteopathic concepts and principles taught to them in the classroom are implemented in specialty patient care, primarily in the acute hospital environment. Many osteopathic specialists state that they do not utilize palpatory diagnosis and manipulative treatment in the specialities because ‘it is not indicated’. I would submit to you that the profession cannot allow either of these attitudes to continue. I would further submit that it would take little educational effort to change both opinions if there was a commitment by the specialist within the profession to make such effort.”

This quote by Dr. Greenman is even more relevant today than it was when it was written 54 years ago. Today’s osteopathic student is faced with triple the debt burden compared to 1976, and much of the decision to go into primary or specialty is driven by this debt burden. We still see the same inertia to practice what I call “full spectrum osteopathic medicine” in many of the specialty and hospital environments that we did in 1976. In addition, we add the complexity of today’s practices, managed care, EMR and RVU’s and the challenge of keeping burnout at bay. Practicing “full spectrum osteopathy” seems to be a Sisyphean task for graduating osteopathic students.

Dr. Greenman’s solution to the inertia was a return to what he calls “osteopathic holism”, which is “an osteopathic physician…dealing with the total patient, at the period in time in the environment in which the patient is found.” He proffered a revised “5 Model Approach” to assure even as a specialist that we don’t forget to focus on the whole patient by considering neurologic, metabolic/endocrine, musculoskeletal, respiratory/circulatory, and behavioral factors. In Greenman’s mind, an osteopathic cardiologist who practices “osteopathic holism” will attend to the patient’s needs, not just the immediate needs of the heart itself.

As osteopathic educators, ALL of us have a duty to the profession and to our patients to model the “osteopathic holism” that Greenman describes, now more than ever. We have the duty to the profession to practice “full spectrum osteopathic medicine”, regardless of specialty or primary care focus. In this light, courage is needed to break down an antiquated model to prepare for new, different or innovative integration, while at the same time, not losing site of our heritage and the wisdom of our predecessors.

"Practicing “full spectrum osteopathy” seems to be a Sisyphean task for graduating osteopathic students."

Medicine today, even in the osteopathic profession, has become more siloed than ever. When we practice within a silo, no matter what aspect of medicine we practice, we become immune to the benefits osteopathic holism can bring to our practices. Diversity in thinking brings added benefits to any business that is willing to move past their imaginary bunkers of belief, and the same is true for our profession. It is time to reimagine what it means to be an osteopathic specialist, reject the “all or nothing” attitude towards OMT, and allow our profession to thrive by bringing back the value-added benefit our patients deserve. Thank you to Dr. Greenman for lighting our way and reminding us of our value.

In Gratitude,

Janice Blumer, DO, FAAO

References

AAO Calendar of Events

Mark your calendar for these upcoming events and deadlines.

2020

May 1-3
“Viscerosomatic Release: A Systemic Model for Neuromusculoskeletal Medicine”—John P. Tortu, DO, course faculty—Idaho College of Osteopathic Medicine in Meridian

June 4-7
“Introduction to Osteopathic Manipulative Medicine: Integrating OMM Into Clinical Practice and Teaching”—Lisa Ann DeStefano, DO, course director—The Pyramids in Indianapolis

New Member Benefit: AAO Assists in Practice Management Issues

The AAO understands the difficulties members face with practice management issues (e.g., claims denial, documentation, coding, etc.). A new AAO member benefit will provide you with support in navigating these issues. Our staff has partnered with Physician Revenue Management Inc. (PRM) to answer your questions, provide useful information and find effective solutions. PRM has more than 20 years of experience in the clinical, practice management, payment resolution and revenue cycle arenas.

They have expertise in Medicare and commercial payers’ reimbursement policies and in developing Current Procedural Terminology (CPT) codes through the American Medical Association’s CPT Editorial Panel and the subsequent valuation of physician services and procedures the Relative Value Scale Update Committee (RUC) processes. Additionally, PRM has experience working with osteopathic physicians and has extensive knowledge of reporting osteopathic manipulative treatment (OMT).

Get help finding solutions to your CPT and ICD-10 coding questions, examining Explanations of Benefits to understand claims denials, or drafting first- or second-level appeal letters. Fees may apply. The AAO will continue to analyze changes to existing payment policies to determine the impact on AAO members.

For additional information, email the AAO at info@academyofosteopathy.org or call the office at 317-879-1881.

Our thanks to everyone who volunteered their time to provide peer reviews in 2019 for The AAO Journal.

Joshua Paul Baker, DO • Leslie M. Ching, DO • Victoria Cuevas, OMS IV • Edward Keim Goering, DO, MSHPE • Katherine L. Heineman, DO • Jodie Hermann, DO • Jennifer Keafing Howe, OMS IV • Raymond J. Hruby, DO, MS, FAAODist • Hollis H. King, DO, PhD, FAAO, FCA • Janet M. Krettek, DO • Drew D. Lewis, DO, FAAO • Nicholas Wade Salupo, DO • Bonnie J. Sendzicki, DO

To join the AAOMJ’s team of reviewers, please contact the AAO Publications Administrator at communications@academyofosteopathy.org. No experience is required and training resources will be provided. Peer reviewers are expected to review at least two manuscripts per year.
Editor’s note: Doris B. Newman, DO, FAAO, presented the AAO’s 47th annual Thomas L. Northup Lecture on October 25, 2019, at the American Osteopathic Association’s annual OMED conference in Baltimore. Thomas L. Northup, DO, for whom the lecture is named, was a founding member of the Academy of Applied Osteopathy, the forerunner of the modern American Academy of Osteopathy. The lecture has been edited for The AAO Journal. Dr. Newman’s PowerPoint presentation is available at academyofosteopathy.org/OMED.

After serving on the faculties of the University of New England College of Osteopathic Medicine and the Nova Southeastern University Kiran C. Patel College of Osteopathic Medicine, Dr. Newman recently transitioned into private practice at the Osteopathic Medical Arts Center of South Florida (OMAC) in Wilton Manors, Florida, where she is delighted to be learning more about how to help patients find health.

Dr. Newman served as the AAO’s 2015-16 president, and she also has served on the Board of Governors, Board of Trustees, and other committees.

The content of the lecture is from Dr. Newman’s own musings and research and is not intended to be nor should be interpreted as representing any of the organizations for which she currently or historically held positions whether on boards, bureaus, or committees.

Introduction and Gratitude
As with all previous Northup lecturers, being chosen to deliver the Thomas L. Northup Lecture is a great honor for me, and I thank the Academy Board of Governors for this opportunity. Obviously, I never met Dr. Northup, so part of this honor is in gaining some insight and understanding of the man and his legacy. Like myself, and many other DOs, Dr. Northup did not have a direct path on his road to osteopathy. Dr. Northup spent his first 2 years of medical training in the early 1920s in an MD program at Syracuse Medical School. Facing some disillusionment about having no significant help for him and his family with the conventional medicine, he “packed up his family and moved to Kirksville, Missouri, to enroll in the osteopathic school.”1 Considered one of the founders of the American Academy of Osteopathy, (“The Academy”), Dr. Northup was concerned about graduates from the colleges of osteopathic medicine (COMs) lacking the “dedication to Osteopathic principles.” In 1936, he organized a meeting during the American Osteopathic Association’s convention, at which 66 DOs attended. Their mission? “to generate a petition for the development of a special section program at the AOA conventions to provide osteopathic structural diagnosis and manipulative therapy.”2 Ultimately, in 1938 the first organized meeting of the precursor to this Academy was formed and held their inaugural educational sessions. For his insight, dedication and forward thinking, I am indebted to Dr. Northup. We are all indebted to Dr. Northup.

Transition and Balance
Today I want to focus on 3 components of osteopathic medicine that might be considered the 3-legged stool upon which osteopathy balances every day. Without health in any one of these legs, the whole risks disease and will falter. These 3 areas are dynamic and ever evolving. Taking a thorough look at their present state of health is the only path to develop our differential diagnosis and from there, our plan of action. We must face the cold, hard reality of where we are, while at the same time looking forward to where we hope to be.

(continued on page 8)
AAO Mission and Vision
The Academy's mission for many years has been “to teach, advocate and research the science, art and philosophy of osteopathic medicine, emphasizing the integration of osteopathic principles and practice and manipulative treatment in patient care,” and in 2015, the Academy's Board of Governors adopted a new vision statement, and as all good vision statements must, it is a bold vision: “All patients are aware of and have access to osteopathic medical care and osteopathic manipulative medicine for optimal health.” It is with this vision in mind that today’s topic was formulated.

Today’s key message is:

• Like the ebbing and flowing of inherent motility, the state of the osteopathic profession is ever changing.
• Although uncertain, the future of osteopathy is most certainly in our hands.
• Today is the day and now is the time for you and me to recommit ourselves anew to the promise that is osteopathic medicine, with OMT as its fulcrum of motion, so that the Academy’s vision can be realized.

Transitions: Our Profession
The first leg of the osteopathic stool is our profession. All things in life are cyclical. Our inherent motility, our diaphragmatic respiration, heartbeat and vascular systems and hormonal fluctuations are all cyclical. The same is true for our profession.

In August 2018, Justin Kaplan, a journalist, wrote an article for 90.9 WBUR titled, “Doctors Without MDs: What Makes Osteopathic Medicine Different?” What is this “difference”? We are told that many DOs do not practice osteopathic manipulative treatment (OMT), the most obvious and tangible difference. If DOs no longer incorporate OMT into patient care, then what is the difference?

In her 2014 Northup lecture, Judith O’Connell, DO, FAAO, stated that osteopathic medicine “is the fastest growing health care profession in America.” Let’s begin by looking at who and where the US osteopathic profession is and some of the work being done to move the needle towards the realization of the Academy’s vision.

Colleges and Schools of Osteopathic Medicine Update
According to the AOA’s 2018 Report on the Osteopathic Medical Profession (OMP) and detailed in the article by Mr. Kaplan, there were 35 colleges and schools of osteopathic medicine with campuses in 53 locations. But a recent review of the AOA’s website revealed that in 1 year that number has grown to 38 COMs on 59 campuses with no end in sight. With nearly 31,000 osteopathic students, this portion of our profession has seen a 34% increase in the number of COM enrollees in just 5 years.

COM Locations and Actively Practicing DOs By State for 2018
The states with the highest number of actively practicing DOs—including California, Texas, Florida, Michigan, Ohio, New York and Pennsylvania—have all had a COM for nearly 40 years. The Philadelphia College of Osteopathic Medicine has been going for 121 years. These 6 states represent a full 50% of all actively practicing DOs. Encouragingly, research tells us that nearly 80% of resident graduates tend to stay and work in the state where they attended medical school and residency. Therefore, the states with COMs, branches, or additional campus locations opened within the last 5 years and having fewer than 1,000 practicing DOs—including Idaho, Utah, Arkansas, and Alabama—will likely realize a surge of actively practicing DOs in their states over time.

MD vs DO Matriculants, 2006-2019
According to the American Academy of Medical Colleges’ (AAMC) website, the rate of MD matriculants rose 30% (to 21,622) since 2006 while the DO matriculants rose at a rate of 164% (to 8,124) over that same period. By the time these matriculants graduate, DOs could comprise as much as 37% of all medical school graduates. So, this all looks wonderful. We need more physicians. We are building more DO and MD schools and we have the qualified applicants willing to take on the burden of time and money to become physicians, so our student pipeline seems solid.

Actively Practicing DOs
The AOA tells us that in 2018, including osteopathic students, there were 145,343 actively practicing or training DOs in the US.

Of those more than 145,000 actively practicing or training DOs, 65% are under the age of 45, 74% of women are under the age of 45, 60% of men are under the age of 45, and 15% are near retirement at ages 55-64 years. The AAMC tells us that within the next decade, nearly 2 in 5 currently active physicians will be over age 65.

The percentage of women in the field of osteopathic medicine has grown exponentially as well. Andrew Taylor Still, MD, DO, the founder of osteopathic medicine, was supportive of women studying osteopathy from the very beginning, and the first class at the American School of Osteopathy (ASO) enrolled 5 women in a class of 21 students. Except for some decreased enrollment numbers of women in the 1950s and ’60s, female DO students have continued to make gains such that, at present, 41% of all practicing DOs are women.

(continued on page 9)
Many COM graduates still enter the primary care fields, and at present some 56.5% of actively practicing DOs are in the top 3 primary care fields of family medicine, internal medicine and pediatrics. Family medicine continues to be the predominant field. But of those family medicine DO graduates, how many intend to incorporate osteopathic manipulative medicine (OMM) into their practices?

How Many DOs Are Using OMT?

One study published in The Journal of the American Osteopathic Association in 2017 found no significant difference by sexes in the number of graduates entering family medicine residencies versus other specialties; however, they did find a statistical significance in graduating female DOs who indicated they believed the use of OMT would enhance their practice over their male counterparts ($P=.005$).

When 3,000 randomly selected osteopathic physicians were surveyed in 1998, over 50% of the 33.2% who responded reported using OMT on fewer than 5% of their patients. Statistics such as these are worrisome and put our profession at risk of losing our most tangible and obvious distinction compared to allopathic physicians.

US-Trained DOs' International Practice Rights

Where are DOs on the international stage? Internationally, US-trained DOs are making strides and breaking ground. Only last year, a United Nations’ agency, the International Labor Organization, issued a letter affirming that US-trained osteopathic physicians are fully licensed physicians who prescribe medication and perform surgery, a recognition that should make it easier for US-trained DOs to gain practice rights internationally.

Osteopathic International Alliance (OIA) data in 2013 estimated that at that time there were 87,850 osteopathic physicians worldwide with the vast majority in the US (82,500), but it might surprise some to know that even then, there were thousands of osteopathic physicians practicing in countries throughout the world with France, Germany and Russia having the most (1,600; 2,300 and 1,300, respectively).

Progress in Osteopathic Research

In the 2011 Northup Lecture, Brian F. Degenhardt, DO, adeptly outlined the progress over the decades that the scientific community has accomplished in osteopathic research. He reminded us that more and more DOs are also PhDs and that when we cooperate with other health professionals, such as some MDs, chiropractors, physical therapists and others, our knowledge of the effects of manual medicine is enriched and broadened. But still, as an osteopathic physician, I often hear osteopathic physicians, residents, and students say, “OMT has no research to back it up.” My retort is usually, “Have you looked?” One of the biggest barriers to searching for research concerning OMT and its application to disease states was the lack of osteopathic nomenclature being included in SNOMED, the Systematized Nomenclature of Medicine, a “systematic, computer-processable collection of medical terms.” This lack of osteopathic terminology in SNOMED made researching topics in OMT difficult, if not impossible.

With the advent of electronic health records and through the diligent work of many osteopathic leaders, including the Academy’s current president, Kendi L. Hensel, DO, PhD, FAAO, SNOMED now includes its collection osteopathic medical terminology. Further, the Academy, initially focused primarily on the education of OMT skills and theory, is now deeply involved in scholarly endeavors. The OsteoBlast, highlighting manipulation research from several sectors, enters members’ email inboxes on a weekly basis. Coupled with quarterly publication of The AAO Journal, the Louisa Burns Osteopathic Research Committee’s (LBORC) extensive work, a robust poster competition, and the A. Hollis Wolf student case presentation competition every year at Convocation, the Academy and its volunteer physician researchers are doing their part in researching what we do. Today, you only need look for quality research on manipulative topics to find them.

In 2016, the AOA updated their “Guidelines for OMT for Patients with Low Back Pain.” The new guidelines are based upon a systematic review by Franke et al, which reviewed 37 studies (16 excluded and 31 evaluated) on the topic of OMT for nonspecific low back pain.

The updated guidelines report that OMT significantly reduces pain and improves functional status in patients, including pregnant and postpartum women, with nonspecific acute and chronic low back pain.

It is studies such as this that led the Florida Legislature this year to include OMT as one modality that statutorily must be disclosed to patients as an alternative to schedule II drugs prior to prescribing.

The Biggest Transition of the Osteopathic Profession in Our Lifetimes

The biggest transition of our profession and in our lifetimes will take place next year as our profession will see the end of AOA-accredited residency programs in favor of the single accreditation system from the Accreditation Council for Graduate Medical Education (ACGME). Gone are the days of the DO graduate almost

(continued from page 8)
always having a traditional rotating internship or AOA residency program available if their chosen specialty or their ACGME plans do not work out. Our graduates have enjoyed an almost protected status for these many years since neither MDs nor international medical graduates (IMGs) qualified for the AOA residencies.

ACGME data from 2019 reveals there are 11,621 accredited GME programs with 139,753 residents. All of this within 150(+) specialties and subspecialties.17 Fewer than 2% (200, or 1.7%) of these ACGME programs currently have Osteopathic Recognition (OR). Disturbingly, the much lauded first program to obtain osteopathic recognition chose last year to forgo the designation, citing lack of interest from the faculty and residents. Conversely, some residency programs that were never credentialed under the AOA have sought and received ACGME osteopathic recognition.

History is being made. For the first time since its founding, the ACGME approved the osteopathic neuromusculoskeletal medicine (ONMM) residency standards, opening the door for DOs specializing in OMT to complete an ACGME residency and perhaps more significantly, for MDs to complete a program that focuses on incorporating OMT into medical care.

ACGME’s ONMM—not to be confused with neuromuscular medicine, or NM—programs total 27 in number, 0.23% of all ACGME residencies, and this year the ONMM Review Committee (RC) approved 3 different entry points into an ONMM program. Specifically designated as ONMM-1, -2, and -3, allowing applicants to choose to:

• complete a full 3 years in ONMM by entering in the first year of a 3-year program,
• complete 2 years in ONMM following an internship, or
• complete 1 year in the ONMM-3 entry point following successful completion of another ACGME residency program (previously labelled NMM+1).

So, the opportunities for growth and expansion in the ONMM residencies, although not well known, are available to DO, MD, and IMG applicants with individual qualifications and basic OMM training being the purview of the individual residency program director.

But how are DO graduates faring in the ACGME match? American Association of Colleges of Osteopathic Medicine (AACOM) reports regarding students matching into residency revealed that in 2016, the first year after the beginning of AOA’s exit from residency credentialing, 99.61% of DO students matched. At that time, the majority of DOs were still matching into AOA-accredited programs.18

By 2019, the numbers remained promising, but they have declined over the ensuing 3 years to 99.34% in 2017, 98.14% in 2018 and this year, 2019, 98.46%.18

Osteopathic physicians are infiltrating and infecting the ACGME with osteopathy and can now be found at all levels of leadership and committee work. As a membership organization, one of the first changes the ACGME made in preparation for the single accreditation system was to change their bylaws, thereby paving the way to increase their membership from 5 to 7 and to include the AOA and AACOM as members on their board.19 In October 2019, ACGME announced that AAO member and AOA past president Karen Nichols, DO, was elected to serve as chair-elect of the board.20

DOs dominate the review committees for Osteopathic Recognition and ONMM, as we would expect. And incidentally, at the ONMM RC meetings, there are always 2 OMM tables, and yes, treatment happens. DOs can be found on 86% of the 28 ACGME review committees including the primary care and specialty disciplines and in the case of family medicine, emergency medicine, transitional year, obstetrics, and ONMM, DOs hold either the chair or vice chair positions.21 As the most significant change in the osteopathic profession takes place, DOs are showing up, doing the work, and bringing osteopathy to the ACGME.

Recap
So, let’s recap so far. Osteopathic medicine has had incredible growth in the number of COMs and number of students that are matriculating and graduating. DOs continue to enter the primary care fields, led by family medicine. Women have been in the field from the beginning and their numbers continue to climb. DOs are younger, and there are some gender differences in the perception of DO graduates who believe they will use OMT in their practices. Although many people perceive research supporting the use of OMT to be nonexistent, there is mounting evidence supporting the use of OMT, and the osteopathic literature is more accessible than ever and is being utilized to create state laws.

Why so much focus on the ACGME in a talk about the present and future state of osteopathic medicine and this Academy? Because, as of next year, our future is inextricably linked to our ability to train residents within the ACGME system. If we fail to increase osteopathically recognized residency training, if we fail to increase ONMM residencies, the vast majority of DOs will cease

(continued from page 9)
to learn the value and skill of OMT after the second year in osteopathic medical school.

Transitions: Ourselves
What are some of the transitions osteopathic physicians, themselves, are facing today?

I, myself, became a statistic in 2017 when I suffered what appears to be a case of physician burnout. Why do I say appears? Because, like many physicians, I did not seek formal medical treatment. I self-diagnosed and ultimately quit my job in order to reorganize my life around health rather than stress and disease.

3 Cardinal Signs of Burnout
Burnout is very difficult to diagnose and research for several reasons, including the “variability in prevalence estimates of burnout … and marked variation in burnout definitions, assessment methods and study quality.” As suggested in a large systematic review and published in JAMA in September 2018, we must first determine how to define burnout. The Maslach Burnout Index (MBI) is the “most widely used and validated survey tool” which identifies three cardinal signs of burnout:

- emotional exhaustion
- depersonalization
- reduced personal accomplishment or experience of ineffectiveness.

In May of this year, The DO reported the costs of physician burnout to be as high as $4.6 billion annually. They quoted Edward Ellison, MD, executive medical director of the Southern California Permanente Medical Group as saying, “Physicians find practicing medicine harder than ever because it is harder than ever. … Nearly everything a physician does in 2019 is monitored, rated, assessed, and reported. The electronic health record has many benefits, but it can also be a burden, adding substantially to the time physicians spend in front of a computer screen while robbing them of what brings them joy: spending time with their patients.”

When Does Burnout Begin?
The path to burnout begins as early as medical school and probably pre-medical school. No fewer than one-third of all medical students report symptoms of burnout. Burnout most certainly follows us into residency, into fellowship, and into our osteopathic careers. The risk factors are the definition of medical training:

- Heavy workload and long hours
- Isolation
- Putting others’ needs before our own

And they are compounded by:

- Lack of family and spousal support
- Poor leadership within the organizations that employ physicians
- Lack of outside hobbies and interests
- Poor nutrition, like pizza
- Missing out on family events
- Lack of time for self-care such as exercise, meditation, etc.

When your “energy account” is empty, you are at risk of burnout. 

Alarming Statistics
At this moment in our history, physicians are suffering symptoms of burnout at alarming rates. In 2019, the Mayo Clinic Proceedings published a study that surveyed more than 5,000 physicians over 8 years in which 54% of doctors reported they were burned out, 88% were moderately depressed, and 59% would not recommend a career in medicine.

The ones who suffer the most may well be our students. They enter this profession somewhat idealistically, but when confronted with these statistics, they become confused and concerned about their choice. I recall a dismayed third-year student who desperately wanted to become an obstetrician. She interviewed every OB that she could find to ask about their careers, and of the 5 physicians she spoke with, none of them recommended OB to her. She was very disillusioned and confused. My recommendation to her was to follow her dream but to do so with her eyes open. I told her that to avoid the same fate, she must put her own health at the top of her to-do list.

A report from the Massachusetts Medical Society (MMS) in partnership with the Massachusetts Health and Hospital Association, the Harvard T.H. Chan School of Public Health, and the Harvard Global Health Initiative states that physician burnout is a “public health crisis that urgently demands action.” This workgroup provides a bit of historical perspective on how we got here. Physicians, medical students, and residents who show signs of fatigue fear being seen as weak or not fit for the job. But this report tells us, “It is not that physicians are inadequately ‘tough enough’ to undertake their work, but that the demands of their work too often diverge from and indeed contradict their mission to provide high-quality care.”

Some scholars point to the Affordable Care Act (ACA) of 2010 as “the most significant single change in the landscape of American
health care” that led to these disturbing statistics today. However, the researchers of this “Call to Action” point to events preceding the ACA, including the 2009 American Reinvestment and Recovery Act which mandated the use of electronic health records (EHRs). This mandate was a response by lawmakers to the prevalence of medical errors. Coupled with a rise in the digital age, EHR data “brought new attention to quality improvement and the value of physician reporting and accountability.” The conflict leading to burnout came in this “new era” as medicine moved from the “historical investment in physician professional autonomy” to the current era of “measurement and accountability targeting quality, errors, inequities, and soaring costs.”

The most recent Medscape National Physician Burnout, Depression and Suicide Report shows us that “bureaucratic tasks” far outweigh all other contributing factors of burnout today.

Urologists, neurologists, and physiatrists seem to be most affected in this latest Medscape report. Emergency medicine, family medicine, and internal medicine specialists round out the top 6 with over 50% of physicians in these specialties reporting burnout. Statistics were not available for NMM specialists. Most often, our specialty is not in any of the dropdown boxes for anything. I hope to see this change over time.

**High Costs and Consequences**

The consequences not only affect physicians but also our trainees, and they heavily impact our patients and the public at large. The MMS’ call to action warns that “if we do not immediately take effective steps to reduce burnout, not only will physicians’ work experience continue to worsen, but also the negative consequences for health care provision across the board will be severe.” That severity will be seen in the loss of physician workforce contributing to the predicted shortage of up to 90,000 physicians by 2025, according to the US Department of Health and Human Services (HHS), contributing to the soaring costs of the US healthcare delivery with the cost of replacing 1 physician reaching as high as $2 million (including lost revenue and recruiting costs).

Where are physicians going after they burn out? Historically, after retirement, physicians would reduce work hours and keep seeing patients. “In years past, physicians who ‘retired’ often worked part time or kept a small patient base. However, with high malpractice premiums, rules and regulations, and the stress and aggravation that physicians experience, they are often more likely to just want out,” says Leslie Kane, senior director of Medscape Business of Medicine.

**Some Good News**

According to the *Mayo Clinic Proceedings*, we may have seen the peak of physician burnout in 2014. Physicians reported less burnout in 2017 but more depression. The rate of physician burnout remained 40% higher than that of the general population, however.

**Prevention and Treatment**

The first 3 months after leaving my position as assistant dean, I focused on 2 things: being present for my family and being actively present for my own health. I joined a meditation group and attended regularly, I did yoga daily, I found a healthier connection with my body, and I slept. Boy, did I sleep.

In fact, a 2012 article in *The International Journal of Psychiatry in Medicine* reveals mindfulness courses can decrease burnout and improve well-being with “limited success,” but it puts the full burden of burnout back on the physician’s shoulders without addressing the true cause of the problem.

The MMS group recommends that to truly address the root problem, we must address the systematic and institutional issues that lead to a poor physician work experience. The group recommends 3 actions to “mitigate the prevalence of burnout”:

- Support proactive mental health treatment and support for physicians experiencing burnout and related challenges.
- Improve EHR standards with strong focus on usability and open application programming interface which gives physicians the ability to open and close portions of the EHR and customize and streamline the use of the EHR.
- Appoint executive-level chief wellness officers (CWO) at every major health care organization.

The burden of this health care crisis and its resolution should be levied not on just physicians but on other stakeholders, including health plan insurers, the National Committee for Quality Assurance, state and federal agencies (those that certify the EHR systems), osteopathic and allopathic medical schools, residency programs and the ACGME, EHR vendors, hospitals, health systems and provider organizations, and boards of registration of medicine and osteopathic medicine.

The Summit Medical Group is the largest independent multispecialty group in the US and has similar recommendations as the Harvard group including:

- Improve communication.
How Are DOs Doing With Burnout?
The Journal of the American Osteopathic Association published a report in 2016 in which the authors surveyed 180 residents across 12 residency programs at Doctor's Hospital in Columbus, Ohio. The residents were asked 30 questions based on the Maslach Burnout Inventory. With a 72.8% response rate, researchers noted, “The majority of the osteopathic residents surveyed reported experiencing burnout.”30 Certainly, more data is needed, and data concerning ACGME residents in programs with OR and ONMM programs will be needed.

There is work to be done in order to move toward our own health and the health of our colleagues and future DOs. On the other side of the burnout syndrome myself, I can say, “Hang in there. Reach out to your loved ones or other support systems. Make a change. Prioritize your own health. We are up for this challenge.”

Transitions: Our Patients
Finally, the third leg of our 3-legged stool must be our patients. “All patients are aware of and have access to osteopathic medical care and osteopathic manipulative medicine for optimal health” is a bold vision and one that drives the Academy leadership in their work.

Patients’ Concerns
There are so many facets of the health care industry that are changing and affecting our patients. From artificial intelligence to precision medicine, consideration of universal health care and the vast amount of medical information at the patients’ fingertips. This allows our patients to self-diagnose and self-treat long before they call their physician. One of my concerns in this digital age is how to get the “truth of osteopathy” to the masses. That concerns me, but what are the concerns to real patients? This detail is somewhat more difficult to unearth. Some questions I had on the topic were:

- Of the US population (approximately 327 million), how many people know what a DO is and understand the distinction?
- In a country with roughly 870,900 practicing MDs and 114,400 DOs (12% and rising), how do people “discover” osteopathy?
- Once a person knows about osteopathy and OMT, do they have access to and can they afford OMT?

These are some of the presumed barriers to realizing our vision, and unfortunately, answers to these questions are elusive. What I did find about patients’ concerns was from Gallop polls.

A 2017 Gallop poll of 1,000 US adults reveals that the number 1 problem facing the people of our nation was poor government leadership.31

Health care concern was second on the list with 10% of respondents citing it as a top problem facing the nation.31

By 2019, a similar Gallop poll32 broke down the most important problems facing the country into economic and non-economic. Again, poor government leadership topped people’s concerns and was cited even more often, with 23% of respondents citing it as their number 1 concern. Health care fared worse and dropped to the fifth highest concern of respondents with only 5% of people placing health care as a “most important problem.”

Looking specifically at concerns about health care, a 2019 Kaiser Family Foundation (KFF) survey33 broke down components of health care topics that people thought the US Congress should prioritize. The top 3 areas identified as the “top priorities” are:

- Lowering prescription drug costs
- Maintaining the Affordable Care Act’s pre-existing condition protections
- Lowering what people pay for health care30

Patients’ Expectations
Once patients come to understand what OMT is and how it can benefit them and their families, is there any evidence of what expectations they have? There is a 2013 survey published in BMC Complimentary and Alternative Medicine that sought to figure out patients’ expectations of private osteopathic care in the United Kingdom (UK). Researchers surveyed 1,649 individuals receiving OMT at a non-physician osteopath’s office and asked about 51 aspects of expectations and if those expectations were met or not met.34 I found the results fascinating and will change my own practice policies to reflect some of these patient expectations.

Those aspects of patient expectations that were met included listening, respect, information-giving, and improved quality of life and relief of symptoms. Fascinating to me that listening and respect topped the expectations of patients and that osteopaths in the UK are meeting those expectation. The top expectations that went

(continued on page 14)
unmet included not knowing there was a procedure for complaints, difficulty paying for OMT, and a perceived “lack of communication between the osteopath and their GP.”

Difficulty paying for the treatment was expected and is a concern for my patients as well, but I must say, I have been guilty of the other 2 unmet expectations and will strive to do better.

A similar survey of UK patients concerning their primary care visits focused on different topics like physician competence and fast access to care. The differences in patient expectations from the osteopath’s office to the primary care physician’s office is also fascinating.

If the Academy is going to realize its vision, patients must be able to find a DO, have access to a DO that does OMT and be able to afford OMT. We must concern ourselves with tracking our patients to find out who did and who did not follow-up and why.

Gone are the days of “lost to follow-up, presumed cured.”

How Do Patients Find An OMT Clinician?
In a review of my patients in the first few months of joining the Osteopathic Medical Arts Center (OMAC), I was interested in understanding how many of my patients were scheduled for a follow-up visit and if they were not scheduled, why not? My review went something like this:

- 36% were awaiting insurance approval and OMAC getting credentialled on their insurance.
- 27% had follow-ups on the books.
- 5% were concerned about the co-pay and $6,500 deductible.
- 9% lived too far and would come only as needed (Mexico and 2+ hours away).
- 4% were too ill or would call after vacation.

Our practice will not succeed if we have less than 30% of patients that need OMT scheduled for a follow-up. We have chosen to become credentialled on insurance and in the first year, it is a nightmare. But, if it works out, it will be a huge benefit to more patients.

Spreading the Truth of Osteopathy
How do you bring the truth of osteopathy to the world –TODAY?

For many of us, the answer must include social media, of course. Facebook, Instagram, LinkedIn, Tumblr, Pinterest, Reddit, Flickr, are a few of the avenues available today. I would invite you to use them cautiously and judiciously, but use them. You might need to ask a student for help.

I hear from patients regularly that “they found me on the internet and reviewed my profile and ratings” before coming to see me. That is a huge change in health care and will affect how the Academy’s vision will be realized.

A review of how the first 100 patients found my office showed that health care referrals and word of mouth are still king. However, I continue to see 1 to 2 new patients per month that find me through the “Find a Physician” directories of the AAO and The Osteopathic Cranial Academy. The price of your membership is definitely worth 6 to 12 new patients per year.

Lastly, I encourage each of you to go on the internet and “claim” your profiles on vitals.com, healthgrades.com, Doximity, and others. Employ assistants to do this; it should only take a few days to do and will not only advertise your good work, but will educate everyone that sees your listing to understand a bit more about osteopathic medicine.

Again, I thank the Academy, Dr. Northup and most of all, you, for your attention and interest. We all must move the Academy’s vision closer to reality as we navigate the transitions within our profession, our own lives and our patients’ lives.

References
(continued from page 14)


Assistant Program Director Position Available

Prisma Health-Midlands – University of South Carolina

The Prisma Health-Midlands – University of South Carolina primary care sports medicine program is looking for an osteopathically trained family physician who is completing/has completed an ONMM residency to join our team as the assistant program director.

This position does not require a CAQ in primary care sports medicine.

This role would include a blend of family medicine resident/sports medicine fellow teaching, academic time and patient care.

Teaching would include supporting the osteopathically trained learners within the family medicine department, precepting/attending in the family medicine center, and working with any allopathically trained sports medicine fellows on OMT techniques that can serve them as they care for our athletic population.

The assistant program director will have protected academic time to work on aspects of curriculum development, assessment and evaluation, and other fellowship tasks in conjunction with the program director.

Patient care can be tailored to the interests of the candidate for this position, but would likely include time in the family medicine center (could be an OMT clinic) and student health.

Information about our primary care sports medicine fellowship program can be found on our website: https://residency.palmettohealth.org/fellowships/sports-medicine/program-overview

Interested candidates are encouraged to reach out to the program director, Zoe Foster, with any questions (zoe.foster@uscmed.sc.edu) and can submit a cover letter and CV to Terrence Townsend, physician recruiter (terrence.townsend@prismahealth.org).

Learn more about Touro at tun.touro.edu
Apply on-line at https://touro.peopleadmin.com/postings/search
For more information, please contact:
Mrs. Theresa Bruscella
(702) 777-4740
theresa.bruscella@tun.touro.edu

David M. Kanze, DO, FAAO

Abstract
The purpose of this study was twofold: 1) to evaluate the education of osteopathic physicians who integrate osteopathic manipulative medicine in practice and attempt to find key factors that might be viewed as best practices to be adopted by colleges of osteopathic medicine (COMs), Departments of Osteopathic Manipulative Medicine (OMM), and postgraduate training programs; and 2) to evaluate if gross human anatomy was seen as valuable in OMM training.

A 31-question, online survey was distributed to English-speaking members of the American Academy of Osteopathy (AAO) in the United States from July through October of 2016. Of the 438 respondents, 325 (74.3%) reported having a mentor in osteopathic manipulative medicine (OMM) or osteopathic manipulative treatment (OMT) while in school. In addition, 270 (61.6%) had dedicated time to practice OMT while in school, with 186 (42.5%) practicing supervised in a school clinic, 340 (77.6%) practicing during an undergraduate rotation, and 244 (55.7%) practicing after school hours. Many of the mentees participated in several of the above activities. Chi square test was applied to participants who are Fellows of the American Academy of Osteopathy (FAAOs). This test revealed that 24 of 26 (92.3%) of FAAOs, who responded, had a mentor, a statistically significant relationship between having an OMT/OMM mentor and becoming an FAAO ($P=0.03$).

Almost all survey participants (438 [99.5%]) had some type of gross anatomy while in medical school. The majority of respondents (321 [73.8%]) performed dissections, 81 (18.6%) had both prosection and dissections, 33 (7.6%) only had prosection, and 321 (73.8%) found that it was extremely helpful in their OMM training. In comparison, 341 respondents (78.2%) reported that gross anatomy was important to their specialty.

The survey clearly demonstrated that early exposure to an OMM mentor leads to increased use of OMT and OMM and that a strong foundation in gross human anatomy was found to be useful for physicians across specialty training, including OMM.

Background
The use of osteopathic manipulative medicine has been steadily decreasing among osteopathic physicians despite the increase in the number of osteopathic medical schools.1,2,3 The single accreditation system could cause a further decrease in the use of OMM, or it could enhance its usage.

Osteopathy was created to fill a void in the medical science of the late 19th century.4 In the century and decades since, it has evolved into osteopathic medicine, a complete system of medical practice that emphasizes the body’s innate ability to heal itself and the relationships between structure and function. Osteopathic medicine is practiced by fully licensed physicians, and it integrates the needs of the individual patient with current medical practices including obstetrics, surgery, and medicine.5(p33)

From the Arcana Center for Integrative Medicine in Wynnewood, Pennsylvania.

Disclosures: none reported.

Correspondence address:
David Kanze, DO, FAAO
Arcana Center for Integrative Medicine
300 Lancaster Ave., Suite 201B
Wynnewood, PA 19096
(267) 437-3299
ddockanze@comcast.net

Submitted for publication March 26, 2019; final revision received August 16, 2019; manuscript accepted for publication December 10, 2019.

Dr. Kanze prepared this thesis as one of the requirements to earn fellowship in the American Academy of Osteopathy. The Committee on Fellowship in the AAO provided peer reviewing for this article, and it was edited to conform to the AAOJ’s style guidelines.

The AAO Journal • Vol. 30, No. 1 • March 2020
(continued from page 17)

As an evolving system, osteopathic medicine has been misunderstood, seen as “alternative” or outright rejected mainly because of the use of osteopathic manipulative medicine (OMM) and osteopathic manipulative treatment (OMT).\textsuperscript{1,2,4,6,7,8}

OMM refers to the use of the osteopathic philosophy while treating patients, generally including the use of OMT. OMT refers to the manual treatment thereof by a U.S. physician.\textsuperscript{6,8,20} While osteopathic medicine, including OMT, is now accepted, it is still commonly misunderstood even among colleagues and especially among medical staff.\textsuperscript{6} This misunderstanding is most likely because of the terms osteopathy or osteopathic. Many people believe osteopathic physicians are simply “bone doctors.” This, of course, is not true, as osteopathic physicians span the spectrum of medical specialties but share a common genesis, finding the root cause of suffering.

The use of OMM is decreasing nationwide despite the increase in the number of osteopathic medical schools.\textsuperscript{1,3,9,10,11,12,13,14} Many have seen the single accreditation system (SAS) as the culmination of what Dr. Andrew Taylor Still would have wanted, while others have seen it as the death knell of our profession as it will further blur the lines between osteopathic and allopathic physicians. In order to maintain our osteopathic distinctiveness, we need to educate allopathic and osteopathic students, residents, and physicians in OMM and OMT. This can be accomplished by utilizing physicians who are not only teaching OMM and OMT but who are practicing it, excelling at it, and championing it.

The Single Accreditation System

The SAS began in 2014 as a Memorandum of Understanding (MOU), between the American Osteopathic Association (AOA) and the Accreditation Council for Graduate Medical Education (ACGME) that outlined a single graduate medical education accreditation system in the United States.\textsuperscript{15,16,17} Before the SAS, allopathic students were not accepted into programs accredited only by the AOA. The SAS allows all students, whether DO or MD, to apply for and matriculate at any residency program. The ACGME, in coordination with the AOA, as part of the SAS, created a program for osteopathic recognition so that all residents, DO or MD, could benefit from osteopathic training. The SAS created an Osteopathic Principles Committee that, in turn, formulated a set of standards that became osteopathic recognition. As of June 2020, the AOA will no longer accredit residencies.\textsuperscript{18,19} Dr. Still desired osteopathic medicine for the masses.\textsuperscript{5} The SAS may help the medical community achieve this, or it may dilute the osteopathic concept into extinction.

(continued on page 19)

Osteopathic Recognition

Medical students and residency program directors alike value osteopathic recognition\textsuperscript{20,21,22} despite multiple studies detailing the declining use of OMM.\textsuperscript{22,23} The interest in OMM and OMT wanes after the first 2 years of medical school, and the use of OMT is declining among osteopathic residents and physicians.\textsuperscript{2,8,9,10,11,12,13,14,24} This is true in spite of an increase in the number of colleges of osteopathic medicine (COM).\textsuperscript{13} Ching expounded upon this by discussing osteopathic postgraduate training by stating many DOs used to complete a traditional rotating internship and then enter into practice. She explained how more DO students entered into ACGME residencies rather than AOA residencies and provided the various reasons why this was occurring, specifically geography, lack of specialty access, and lack of prestige among the AOA-approved residencies and fellowships.\textsuperscript{13} The SAS should resolve these issues during residency, especially if there is a way to mentor and train our DO students and residents to function osteopathically.\textsuperscript{13} In this effort to incorporate the SAS, the University of Washington’s WWAMI (Washington, Wyoming, Alaska, Montana, Idaho) network is actively assisting its AOA-only programs to become accredited by the ACGME and is encouraging osteopathic recognition in its residency programs.\textsuperscript{20,21,22}

According to Veit, “most students chose to utilize osteopathic principles and practices because they have had a relationship with an osteopathic primary care mentor.”\textsuperscript{25} Teitelbaum found that students were more likely to choose osteopathic residency programs if they had an osteopathic mentor.\textsuperscript{26} Ruben et al, found that osteopathic residents in allopathic programs were less likely to utilize OMM frequently because “they lack adequate mentors and equipment.”\textsuperscript{27}

Mentoring

A mentor is defined as, “a wise and trusted counselor or teacher,”\textsuperscript{28} and can be attributed to Homer’s The Odyssey.\textsuperscript{29} The term doctor is derived from the Latin “docere” meaning “to teach.” Mentoring has been extensively researched, and the outcomes of these studies have shown that job satisfaction, productivity, advancement, effective teaching, and salaries are increased while career proficiency, socialization, and working relationships are created and maintained.\textsuperscript{29} Mentors also receive increased satisfaction as they, often, receive recognition for being a mentor and can rejuvenate themselves and their careers by working with younger people.\textsuperscript{29,30,31} In fact, osteopathic students and residents have called mentoring “critical” in the first years of a career.\textsuperscript{29}

Studies have demonstrated that “mentoring introduces the protégés to and reinforces their understanding of the various standards of practice, conduct and participation which are underpinned by a
set of professional values, and constitute acceptable norms within a profession.”

Kashiwagi et al called mentoring “vital to professional development in the field of medicine, influencing career choice and faculty retention.”

Mentoring is vital. It has shown a clear benefit to multiple professions, including osteopathic medicine, especially in the areas of OMT and OMM. In fact, among osteopathic medical students, an earlier exposure to OMT, even in the premedical years, portrayed higher levels of agreement with the osteopathic concept and the intention of utilizing OMT in the future. Other medical specialty based studies have depicted that among students, career choice and job satisfaction have been shown to be influenced by mentors as well. The Draper study also demonstrated the congruence with the osteopathic concept and the intention to utilize OMT was dependent on which COM they attended. This most likely can be attributed to mentorship, whether direct or indirect, in the particular college of osteopathic medicine. Multiple studies have shown that interest in utilizing OMT and the osteopathic concept decline as students participate in their clinical years of school, and one even stated that osteopathic physicians discouraged the use of OMT as a treatment modality in the hospital. This same study elicited that OMM/OMT rotations were very valuable, perhaps secondary to mentorship and direct “hands-on” time with an attending physician. These studies indirectly show that mentorship is key to the preservation of osteopathic distinctiveness.

Purpose
This study evaluated the relationships between how our current physicians came to utilize OMM and OMT. It evaluated their use of osteopathic principles and practices, their exposure to anatomy, their residency training, and their utilization of mentorship.

There were multiple endpoints, including the comfort using OMT/OMM in various years of medical school training, residency training, as well as, outside training. Secondary endpoints included evaluating the number of COM faculty certified by the American Osteopathic Board of Neuromusculoskeletal Medicine (AOB-NMM) or certified for special proficiency in OMM (C-SPOMM) at time of matriculation and during residency. It also helped to determine what physician specialties, including NMM/OMM, have been utilizing OMM. Other secondary endpoints included the types of techniques that physicians who utilize OMM perform most often and for what conditions.

Methods
A 31-question, online survey (see Appendix) was distributed to English-speaking, U.S.-trained DOs who were full members of the American Academy of Osteopathy (AAO) in July 2016 and again in October 2016 utilizing the REDCap electronic data collection services. Survey data was imported into SPSSv24.0 software (IBM Corp.) and summarized using frequencies and percentages. Associations between ordinarily scaled metrics were tested for significance via exact Kendall’s tau test. Nominally scaled metrics were tested for distributional equality via Pearson chi-square test. All statistical testing was 2-sided with \( P < 0.05 \) considered statistically significant.

Of the 1157 fully licensed U.S. DO members of the AAO to whom the survey was sent, 438 responded (37.86%). This is greater than the average standard response rate among the medical community of 35%. This data will help dictate what we need to do in the future, in our schools and residencies, for osteopathic medicine to maintain its osteopathic distinctiveness and to introduce and educate our allopathic colleagues to osteopathic principles and practices including OMM and OMT.

Results
Physicians responding to the survey represented 25 of the 37 campuses of the colleges of osteopathic medicine (COM) from all geographical areas of the United States that were in existence at the time the survey was distributed. Several of the COMs were not represented, as they have not yet had graduates from residency programs. Physicians aged 31 to over 81 were represented (see Figure 1).

Figure 1. Survey respondents represented physicians aged 31 to over 81.
Graduates ranging from 1956 to 2013 responded with the largest number of respondents having graduated in 2009 (see Figure 2). The largest number of respondents (93 [21.3%]) completed residencies within the last 5 years.

Contrary to numerous published studies stating that the overall usage of OMM/OMT among all DOs is decreasing, respondents in this study were found to practice OMM often, and the greatest number of AAO members utilizing OMM/OMT had completed residencies within the last 5 years (96 [21.9%]).

A broad spectrum of practice types was represented as well, with 316 (72.2%) being in private or group OMM practices, 74 (16.9%) in multispecialty practices, 119 (27.2%) in academic institutions, and 18 (4.1%) who were not practicing. Of the respondents, 78.1% are currently teaching OMM/OMT.

Table 1 depicts how OMM/OMT physicians overwhelmingly are involved in teaching. Many of these physicians teach students and residents in addition to leading continuing medical education (CME) courses.

<table>
<thead>
<tr>
<th>Currently Teach OMT/OMM</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of osteopathic medicine</td>
<td>136</td>
<td>31.1</td>
</tr>
<tr>
<td>Residency program</td>
<td>103</td>
<td>23.5</td>
</tr>
<tr>
<td>CME courses</td>
<td>143</td>
<td>32.6</td>
</tr>
<tr>
<td>Students on rotation</td>
<td>242</td>
<td>55.3</td>
</tr>
<tr>
<td>Residents on rotation</td>
<td>173</td>
<td>39.5</td>
</tr>
<tr>
<td>Not currently teaching OMT/OMM</td>
<td>96</td>
<td>21.9</td>
</tr>
</tbody>
</table>

Residency-trained family physicians had the highest representation among study participants with 159 respondents (36.7%) completing traditional family medicine programs and 31 (7.2%) completing integrated family medicine and neuromusculoskeletal medicine (NMM) programs. The second highest group of respondents were those trained in NMM/OMM residency programs (79 [18.2%]), and the third highest represented group completed only an osteopathic or traditional rotating internship (48 [11.1%]).

Table 2 lists complete residency information for respondents.

Figure 2. While respondents represented graduating classes from 1956 to 2013, the largest number of respondents graduated in 2009.
Table 2. Family medicine residents were the most represented among survey participants, followed by NMM-trained residents.

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency medicine</td>
<td>15</td>
<td>3.5</td>
</tr>
<tr>
<td>Family medicine</td>
<td>159</td>
<td>36.7</td>
</tr>
<tr>
<td>FM/NMM</td>
<td>31</td>
<td>7.2</td>
</tr>
<tr>
<td>IM/NMM</td>
<td>4</td>
<td>0.9</td>
</tr>
<tr>
<td>Internal medicine</td>
<td>20</td>
<td>4.6</td>
</tr>
<tr>
<td>Internship only</td>
<td>48</td>
<td>11.1</td>
</tr>
<tr>
<td>Neurology</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Neuromusculoskeletal medicine (NMM/OMM)</td>
<td>79</td>
<td>18.2</td>
</tr>
<tr>
<td>Ob/Gyn</td>
<td>6</td>
<td>1.4</td>
</tr>
<tr>
<td>Orthopedics</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Other</td>
<td>33</td>
<td>7.6</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>11</td>
<td>2.5</td>
</tr>
<tr>
<td>Physical medicine and rehabilitation</td>
<td>20</td>
<td>4.6</td>
</tr>
<tr>
<td>Surgery</td>
<td>4</td>
<td>0.9</td>
</tr>
<tr>
<td>Total</td>
<td>433*</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Five respondents did not provide their residency information.

Of the participants, 81 (18.5%) completed an NMM Plus-1 residency, 122 (27.9%) were undergraduate fellows in osteopathic principles and practices or OMM, 294 (67.1%) are SPOMM- or NMM-certified, and 26 (5.9%) are FAAOs.

There was a great variance in the number of C-SPOMM or C-NMM/OMM physicians teaching at the COMs at the time of the respondents’ matriculation. The survey did not distinguish between full-time and part-time faculty. A majority of respondents (306 [70.3%]) came from COMs with at least 1 faculty member who was NMM- or SPOMM-certified (see Figure 3). Of the 435 respondents who answered this question, 147 (33.8%) reported attending COMs with 5 or more certified faculty on staff, and 349 respondents (80.2%) reported their COMs had at least one FAAO faculty member with 2 being the most frequent (94 [21.6%]). Some respondents reported in the comment section of the survey that they attended school before the SPOMM or NMM/OMM certifications were established.

While in school, 270 (61.6%) of study participants had dedicated time to practice OMT, with 186 (42.5%) practicing with an accomplished DO in a school clinic, 340 (77.6%) practicing during one or more student rotations, and 244 (55.7%) practicing after school hours.

![Number of NMM/C-SPOMM physicians on COM staff](image)

*Figure 3. The majority of respondents reported attending COMs with at least one NMM- or SPOMM-certified faculty member on staff.*

(continued on page 22)
Of the respondents, 325 (74.3%) participants reported having an OMM/OMT mentor as well. Many spent extra time doing OMT, including but not limited to, shadowing OMM mentors, participating in CME courses, or being members of the Student American Academy of Osteopathy (SAAO) or its predecessor, the Undergraduate American Academy of Osteopathy (UAAO).

Osteopathic medical students report their greatest exposure to OMM/OMT is during the first and second years of medical school, and this gradually declines during their clinical third and fourth years and is almost nonexistent in their residency training.\textsuperscript{3,34,35,44,45} This survey’s participants reported that 391 (90.1%) of them utilized OMT in their residencies even though 263 (60.3%) of the residency sites did not have an NMM/OMM- or SPOMM-certified physician on site.

According to survey data, 437 out of the 438 (99.8%) participants apply OMT at least some of the time with the vast majority (280 [63.9%]) utilizing OMT 80% to 100% of the time. This is not representative of the osteopathic community, but it does show that AAO members are performing OMT/OMM at an incredible rate.\textsuperscript{2,9}

Respondents practice a broad spectrum of osteopathic techniques depending on patient needs and physician comfort (see Figure 4).\textsuperscript{35,39,45} The most utilized technique overall was osteopathic cranial manipulative medicine (formerly called osteopathy in the cranial field), which was reported used by 405 (92.5%) of respondents; followed closely by muscle energy, used by 404 (92.2%); and myofascial release, used by 402 (91.8%).

Participants report treating a variety of diseases and injuries, the most common being treatment of the spine to alleviate back pain (16.4%) followed by “everything” (16.0%) and dysfunctions and disorders of the head (14.7%). Other answers included additional areas of the musculoskeletal system, trauma, developmental problems, joint dysfunctions, inflammation, temporomandibular joint disorder, and visceral issues. Of those who responded to the survey, 63.7% reported using OMT to treat musculoskeletal complaints. When the study included the physicians who answered “everything,” it arrived at a total at 79.4% who treat musculoskeletal problems. This corresponds to a recent study that reviewed common conditions being managed with OMT. That study revealed 68% to 75% of the diagnoses where OMT was utilized were musculoskeletal in origin.\textsuperscript{48} (See Figure 5.)

Additional analysis of variance (ANOVA) was utilized to discover how to maintain osteopathic manipulative medicine. A chi square test was applied to participants who are FAAOs. This test revealed that 24 of 26 (92.3%) of responding FAAOs had a mentor. This showed a statistically significant relationship between having an

![Image](image-url)

**Figure 4.** While respondents reported using a broad spectrum of osteopathic manipulative techniques, osteopathic cranial manipulative medicine (OCMM) was the most popular.
OMT/OMM mentor and becoming an FAAO ($P=0.03$). Additional cross tabulations revealed a statistically significant correlation between being an FAAO and increased usage of OMT ($P=0.04$ via exact Kendall’s tau test).

Another cross tabulation of study participants yielded a positive, statistically significant relationship between years post-residency and increased OMT use ($P=0.001$ via Kendall’s tau test). Figure 6 depicts the years post-residency and their corresponding percentage of usage of OMT. For example, 6 of 93 (6.5%) participants 0 to 5 years post-residency reported using OMT 0% to 19% of the time.

The small sample sizes of respondents from each of the COMs did not allow for a statement of significance for the amount of OMT performed by each school’s graduates. However, 360 (82.2%) of participants from all of the COMs use OMT at least 40% of the time.

Almost all (436 [99.5%]) of survey participants were taught gross anatomy while in medical school: 321 (73.8%) performed dissections; 81 (18.6%) did both prosection and dissections; and while a small minority (33 [7.6%]) only did prosection. The majority (358 [86.7%]) had gross anatomy for more than 4 months, and no one had it for longer than 1 year. Some (55 [13.3%]) only had it for 3 months or less. Only 5 (1.1%) of participants felt that gross anatomy was not helpful to their OMM training while 321 (73.8%) found that it was extremely helpful to their OMM training. In comparison, 341 (78.2%) reported that gross anatomy was important to their specialty while only 1 (0.2%) found it not helpful at all.

**Limitations**

The study was limited in several regards as the survey was only sent to English-speaking, fully licensed U.S.-trained DO members of the AAO and no student, resident or international members were surveyed. It was only given to the group (the AAO) most likely to utilize OMM and OMT and it was a survey based on the memories of those surveyed as well.

To improve the data in the survey, a longitudinal approach could be taken and a similar survey could be provided to all students entering the COMs, and then again in their third year, fourth year, intern year, immediately after residency and again 5 years after residency, regardless of specialty. This would allow the osteopathic community a more accurate picture of osteopathic training to provide a platform for continuous reassessment and improvement of this very needed practice.

**Figure 5.** Top 15 systems treated with osteopathic manipulative treatment by survey participants.
Discussion and Next Steps
The survey delineated and confirmed that members of the AAO perform OMM utilizing every different type of OMT in the armamentarium for all sorts of conditions, the majority of which are musculoskeletal in nature.

The survey also detailed that a strong foundation in gross human anatomy was found to be useful for physicians across specialty training and practicum. Dr. Still wrote, “An osteopath [-ic physician] reasons from his knowledge of anatomy. He compares the work of the abnormal body with the normal body.” Osteopathic medicine grew from “the bones” as Dr. Still garnered a knowledge of anatomy from local graves. Still absorbed all the information he could from the dead, including the normal and abnormal anatomy. This knowledge of anatomy guided Dr. Still’s treatments and laid the groundwork for the profession. In contrast to this, Moxham and Pais have stated the number of hours of gross anatomy instruction have decreased in medical school in the United States. In addition, new teaching methods that exclude cadaveric teaching have been introduced as well. The decline in gross anatomy and its consequences have been denounced by surgeons and other clinicians alike.

The survey clearly characterized that early exposure to an OMM mentor leads to increased use of OMT and OMM. It is apparent that resources for mentoring at each of the COMs are present but perhaps they need to be made more available to students not only in the preclinical years, but in the clinical third and fourth years and in residency training as well. This is secondary to the proven decline in interest in OMT during those times.

Furthermore, the survey clearly characterized that having an OMM mentor directly leads to becoming an FAAO and that FAAOs utilize more OMT and OMM. It did not show that having more NMM/C-SPOMM faculty present during medical school or residency created more physicians who use OMM. COMs were about equal in creating members who utilize OMM with their patients over 40% of the time despite having different numbers of NMM/C-SPOMM certified physicians.

Figure 3 depicted the numbers of NMM/C-SPOMM certified physicians on site while students matriculated, and 129 (29.7%) of respondents reported that the COMs did not have any OMM certified physicians on staff. Multiple explanations exist for this response, including the fact that many respondents attended their COM prior to the designation of C-SPOMM or NMM certification existing. A comment was emailed to the AAO stating this was the case. The C-SPOMM designation was formally adopted in 1990 and changed to its current moniker of NMM/OMM in 1998.

In addition, this survey depicted how OMM/OMT, like other specialties and procedures, perpetuates itself as practicing physicians...
are teaching and mentoring the next generation. (see Table 1) The Royal College of Surgeons advocates mentoring at “all stages of a surgeon’s education and career,” and offers guidance and a publication on such.48-50 Mentoring is a concept that needs to be expanded and supported in osteopathic arenas as it is in other specialties.

In order to support and expand the current mentorship initiatives and for these initiatives to be successful, a multipronged approach should be created, and it ought to begin with prospective medical students and continue through the preclinical medical school years (years 1 and 2), the clinical medical school years (years 3 and 4), residency, and throughout professional life.

Despite an ongoing advertising campaign by the American Osteopathic Association,51 public knowledge of OMT is lackluster at best. In fact, no results on public knowledge of OMT exist via Google search. Patients who have received OMT advocate for its usage and become the first step in educating the public. They also are prospective osteopathic physicians and should be mentored as such by their physicians. The premedical advisers at colleges and universities around the United States should be educated about the values, virtues, and philosophies of osteopathic medicine and its distinct advantages, and they, in turn, can advise prospective physicians in applying for osteopathic medical school. These advisers should have a list of local osteopathic physicians that utilize OMT and who encourage and enjoy mentoring premedical students, in order to prepare them for osteopathic medical school interviews and in the use of OMT.

The exposure to OMT and mentoring has been proven by multiple studies to be most prevalent during the preclinical years of medical school.27,29,32,34,38 This is most likely due to the mandatory attendance at osteopathic manipulative lab sessions and in preparation for boards. It also may be attributed to interested students shadowing local and COM physicians who utilize OMT. Physicians teaching OMT should be seen utilizing OMT to reinforce its use. Mandatory quarterly OMT shadowing could be implemented by the COMs to highlight osteopathic distinctiveness. OMT exposure declines greatly during the clinical and residency years, except in NMM residencies, as many have reported not seeing the use of OMT during this time.

There are many barriers to utilizing OMT in students’ clinical years, such as rotations with allopathic or osteopathic preceptors who do not utilize OMT. This again can be addressed with COM- or AAO-sponsored OMT weeks or shadowing experiences. It can also be altered with mentoring. Mentoring can continue through the clinical years in various proven ways. Borrowing strategies from other specialty groups that have established mentoring policies and procedures could prove helpful. The Royal College of Surgeons has a procedure manual that details mentoring and introduces 2 mentoring models; the Egan model and the GROW model.50 The Egan model works on empowering the mentee while the GROW model encourages goal identification and assessments of how to achieve them.50 Alternative models that could be utilized include the apprenticeship, cloning, nurturing, and friendship models.52 Other methods that could be employed include distance mentoring (from inside or outside the student’s COM or the AAO), group mentoring sessions, local mentoring (from the institution, local/regional AAO component societies/study groups or rotation site) and peer mentoring.52 Installing distance mentoring programs in the COMs for third- and fourth-year students would require financial, temporal, and personal resources; although with the increasing use of online training, it is easier to accomplish than it once was. The AAO could assist by creating a central database of evidence-based osteopathic treatments for common ailments encountered during the third and fourth year. These essential treatments could then be further researched and confirmed in multi-centered studies by the COMs utilizing them.

Further assistance can be provided to medical students and residents though group mentoring sessions. These take place currently regionally in the form of osteopathic study groups, Osteopathic Postdoctoral Training Institutions (OPTIs) and regional component societies of the AAO. These groups can expand their numbers by including local rotating students and residents. This would enhance the societies’ exposure and should increase the usage of OMT among the students and residents who attend these sessions. These societies and organizations would also garner members for themselves and the AAO as a whole. Moreover, they would create relationships that could become the basis for local mentoring and lifelong mentoring amongst attendees. This also may help to fulfill some of the required training and journal club requirements for residencies to obtain and maintain osteopathic recognition. If the study groups had local and regional sessions for residency programs, this could reduce the burden of residencies finding OMT instructors and also could reduce cost for the residencies, increase exposure for OMT, and help residents and students gain valuable OMT instruction.

The AAO Membership Committee currently hosts mentoring/mentee sessions annually during the AAO’s Convocation. These sessions are designed to begin a mentor/mentee relationship in the standard dyad mentorship method. These relationships can then blossom via the distance or local models depending on the actual distance between the mentor and mentee. This program should be expanded to include other AAO-sponsored events, continuing medical education courses and throughout the year.
(continued from page 25)

Mentoring is known to reap benefits for the mentor and mentee alike.33 Increasing the usage of OMT is one of these benefits, and to obtain osteopathic recognition, the mentoring relationship must be strong. The members of the AAO with experience in the application process, residency teaching, hospital policy and the like, must mentor the less experienced members of the AAO and the osteopathic and allopathic communities in order for osteopathic recognition to be obtained and maintained at more than its foundational levels. This will increase the usage of OMT and should open new research opportunities to prove how and what OMT is useful for. This in turn should result in an upsurge of the number of physicians utilizing it and championing it, thereby maintaining osteopathic distinctiveness for future generations.

As residency program directors, residents, and students are desiring osteopathic recognition, current OMT physicians should help residency programs achieve this recognition.20,21,22,23 In fact, residency directors of programs with OMT curricula perceived their osteopathic residents' academic preparation as superior to those without OMT curricula.24 This is most likely due to the increased anatomic learning that takes place. To help with osteopathic recognition, OMT curricula can be passed down from mentors to mentees and can be shared with residency programs in order to help create a national standard of excellence. Again, an AAO centralized database that is specialty-specific and evidence-based could be created to assist in this regard. This database should include written articles, techniques (video and described) for residencies and COMs to stream for usage.

This standard of excellence could result in certificates of excellence in OMT for programs achieving osteopathic recognition, once again increasing the overall knowledge of OMT. In the era of the SAS, certification will be the standard to which all of us will be held. What is unknown is whether it will become easier or more difficult to maintain osteopathic distinctiveness. In January 2017, Levine published a “call to action” for osteopathic graduate medical education (OGME) programs to step up and apply for ACGME accreditation and osteopathic recognition.38 As of August 2019, there were 220 programs that had achieved or applied for osteopathic recognition.39 These programs are both allopathic and osteopathic.

Conclusion
This survey proved that mentorship is the key to maintaining osteopathic distinctiveness. This concept is not new, but with the evidence provided above that proves mentorship creates FAAOs and that FAAOs utilize the most OMT, it proves that mentorship is the key to maintaining OMT. The AAO is in the prime position to provide mentorship to the COMs, residencies, and programs pursuing osteopathic recognition. The creation of an evidence-based OMT database by the AAO can go a long way in helping COMs and programs achieve this.

Finally, utilizing OMM/OMT mentoring in conjunction with the single accreditation system (SAS) with osteopathic recognition, may prove to integrate the best of what medicine has to offer. This mentorship can cross boundaries, imbuing the strength of allopathic research and innovation, humanism, and the 4 tenets of osteopathic medicine to create caring, humanistic, patient-centered physicians. This very well could become the culmination of what Andrew Taylor Still, MD, DO, envisioned when he unfurled the banner of osteopathy (osteopathic medicine) on June 22, 1874.4

Acknowledgements
Douglas Hayes, DO, compiled and analyzed data for this manuscript.

I would like to acknowledge Wm. Thomas Crow, DO, FAAO, for mentoring me through the FAAO process. I also thank Dr. Crow; Stephen I. Goldman, DO, FAAO; Stephan Hagopian, DO, FAAO; and Viola M. Frymann, DO, FAAO, for being my Mt. Rushmore of mentors; and Leann D. Jons-Cox, DO; Virginia M. Johnson, DO, MBA, FAAO; Precious L. Barnes, DO, MS, MS; Allison Abresch-Meyer, DO; and Allison Franklin, DO, along with the above mentors for reviewing and assisting me with the survey prior to its release. And mostly I thank Kylie Kanze, DO, for all of the above and for helping me through the entire process.

References

(continued on page 27)
(continued from page 26)


(continued on page 28)


40. REDCap [software]. https://projectredcap.org/software/.


---

**CONTINUING MEDICAL EDUCATION QUIZ**

The purpose of the continuing medical education quiz is to provide a convenient means of self-assessing your comprehension of the scientific content in the article “Osteopathic Manipulative Medicine in the Era of the Single Accreditation System: Can the Past Guide the Way to the Future of OMM?” by David M. Kanze, DO, FAAO.

To apply for 0.5 credits of AOA Category 2-B continuing medical education, fill out the form on page 27 and submit it to the American Academy of Osteopathy. The AAO will note that you submitted the form and forward your results to the American Osteopathic Association’s Division of Continuing Medical Education for documentation.

Be sure to answer each question in the quiz. You must score a 75% or higher on the quiz to receive CME credit. The correct answers will be published in the next issue of the *AAOJ.*


CONTINUING MEDICAL EDUCATION

This CME Certification of Home Study is intended to document your review of the CME article in this issue of The AAO Journal under the criteria for AOA Category 2-B continuing medical education credit.

CME Certification of Home Study

This is to certify that I, ____________________________,
(type or print name)
read the following article for AOA CME credit.


Author: David M. Kanze, DO, FAAO


AOA Category 2-B credit may be granted for this article.

00__________
(AOA number)

Full name: ____________________________
(type or print name)

Street address: _________________________

City: _________________________________

State and ZIP code: ____________________

Signature: _____________________________

Complete the quiz to the right by circling the correct answers. Send your completed answer sheet to the American Academy of Osteopathy. The AAO will forward your results to the American Osteopathic Association. You must answer 75% of the quiz questions correctly to receive CME credit.

1. Which of the following techniques was utilized by the most osteopathic physicians in the AAO?
   a. Muscle Energy Technique
   b. Osteopathic Cranial Manual Medicine
   c. Myofascial Release
   d. High Velocity Low Amplitude

2. Which of the following is the path to maintaining osteopathic distinctiveness in the era of single accreditation?
   a. Increasing the amount of osteopathic content each school year
   b. Mentoring on osteopathic principles and practices
   c. Increasing the amount of osteopathic content during residency
   d. Increasing the amount of osteopathic content on the national boards

3. (True/False) The amount of gross human anatomy instruction is increasing throughout medical school training in the United States.
   a. True
   b. False

4. When is the most exposure to osteopathic principles and practices?
   a. Residency
   b. Clinical years of osteopathic school (years 3 & 4)
   c. Preclinical years of osteopathic medical school (years 1 & 2)
   d. Internship

Below are the answers to The AAO Journal’s December 2019 quiz on the article titled “Impact of Pre-doctoral Teaching Fellows on Osteopathic Medical Students: A Near-peer Teaching Program Evaluation” Beatrice Akers, DO.

1. d. Tutees expressed that this model provided a non-threatening learning environment.
3. a. Increasing student satisfaction with OMM curriculum
4. a. T12 extended, rotate and side-bent right dysfunction would most likely be found with irritation of the uterus.
We keep SAFETY, QUALITY, and PATIENT COMFORT at the forefront.

Learn more about Gebauer’s Ethyl Chloride at www.Gebauer.com/AAO
Introducing Short Lever Still Technique, a New Variant

Richard L. Van Buskirk, DO, PhD, FAAO

Abstract
A new variant of the Still Technique is described involving the use of a local force vector applied directly to the restricted tissue during the passive movement of the tissue from its ease through its restriction. This new “short lever” version is easily taught and, based on classroom experience, can be readily mastered by students of osteopathic manipulative medicine at all levels.

Background
In 1996 an osteopathic manipulative method derived from one of Andrew Taylor Still’s original manipulative methods was reintroduced to osteopathic medicine. Treated the Still Technique by its rediscoverer, the musculoskeletal manipulative method was simple at its core. As described by Dr. C.P.E. McConnell, an early student and colleague of Dr. Still’s at the America School of Osteopathy (ASO) in Kirksville, Missouri, the method was “indirect then direct.” To treat a musculoskeletal restriction, the restricted element was first positioned in its ease (indirect positioning) and then carried through its area of restriction (directly to or through the area of restriction).

Although Dr. Still had described manipulative applications in his book Osteopathy Research and Practice, the descriptions were often incomplete and presented in the context of treating non-musculoskeletal problems. Attempting to treat a patient’s musculoskeletal restriction according to Dr. Still’s descriptions was only occasionally successful. Because Dr. Still himself was known to produce consistent and complete successes in his patients using osteopathic manipulative methods, it was obvious that something was missing.

In reading an osteopathic textbook published by Dr. Charles Haz-hazzard, another student and colleague of Dr. Still’s at the ASO, four quotes were discovered that began by explaining “this is how Dr. Still does it.”

Dr. Still, in the case of lateral spinal lesions, stands in front of the patient, who is sitting. He passes both arms around the body and clasps his hands over the point of the lesion. (He) sinks the spine down upon this point, bends the patient toward the side of the deviation of the vertebra, then with the hand makes pressure upon the vertebra to force it back to place while he rotates the body toward the opposite side. Each description included the indirect initiation and then direct movement, but also included something like the phrase “sinking it down.” By including a directed force focused on the restricted tissue throughout the movement of the tissue the indirect then direct method worked consistently. This led to the conclusion that a compressive force introduced toward the dysfunctional tissue was critical to this manipulative method. This directed force element was subsequently codified as a “force vector.” The implication of the phrase “sinking it down” was that the force vector was to be applied at a distance from some other part of the body.

The Still Technique Manual describes the methodology and its applications that evolved as the Still Technique. Jerry L. Dickey, DO, FAAO has taught another version of the same methodology as the “Still Exaggeration Technique”. For more than twenty years, the Still Technique has been described and taught as an indirect then direct manipulative technique using a force generated towards the tissue from a distance. In its most compact form, a modern statement of the Still Technique includes the following steps:

(continued on page 32)
(continued from page 31)

1. Place the restricted tissue in its position of ease.

2. Introduce a force vector from some other part of the body directed towards the restricted tissue. The force vector only requires a couple of grams or an ounce or two of compression or traction if it is well directed.

3. Maintaining the force vector toward the restricted tissue move the tissue from its position of ease toward and through the area of restriction.

4. As it moves through the area of restriction a crack or bump may be heard or felt. However, neither is necessary.

The development and maintenance of the force vector from the operating hand to a restricted tissue is probably the most difficult part of the Still Technique. Identifying operating positions for a restricted tissue that would allow the proper ease and subsequent movement through restriction was a primary focus of two editions of the book describing the technique and its applications.

Typically, the Still Technique has not been easily mastered by either those just learning osteopathic manipulation, or those returning to osteopathic manipulative treatment (OMT) after a hiatus in use. Being able to introduce a force vector from a distance and maintain it throughout the movement sequence imposes a significant learning curve for those who wish to utilize the technique; however, it is not impossible. It takes time, repetition and good coordination to achieve, which has likely limited the Still Technique’s broader acceptance.

Two years ago, it became apparent to the author that there is another way to perform the Still Technique that takes the issue of a force vectored from a distance out of the equation. To understand the genesis of this alternative approach, one can look at the applications of the Still Technique in the cranial field as described in the second edition of The Still Technique Manual. In those applications, the restricted tissue is placed in its position of ease. The force vector is applied directly to the restricted cranial tissue and the tissue is then carried in the direction of the restriction. It took the author many years to realize that the force vector here was significantly different from the force vector from a distance that was initially described as essential to the Still Technique. It was nonetheless successful in reducing cranial tissue restrictions.

With this realization, the author decided to determine whether a different version of the Still Technique might work. In this new version, the force vector is applied directly to the restricted tissue from the sensing hand or digit. As is the case with the force vector at a distance, the amount of force necessary is minimal. Generally, 1-2 ounces or a few grams of force is sufficient. Because the force is minimal, it does not get in the way of sensing what is occurring in the tissue. Additionally, the question of maintaining the force vector on the tissue during movement is minimized, as the sensing and force vectoring digit is directly over the tissue.

To make a distinction between the two styles of force vector, the author now uses the term “long lever techniques” for those using a force vector applied from another part of the body towards the restricted tissue. The method of applying the force vector directly to the tissue after positioning the tissue in its ease is termed a “short lever technique.”

Interestingly, some of Hazzard’s descriptions include introducing a firm pressure to the tissue in addition to “sinking it down.” This direct compression was dismissed because it was determined to be unnecessary and because such pressure was a part of Hazzard’s own manipulative method, a form of high velocity direct then indirect musculoskeletal manipulation not in use currently. Dismissing the direct compression to the restricted musculoskeletal element was in fact an error.

Treatment

What would an amended description of the Still Technique look like?

1. Place the restricted tissue in its position of ease. This is not the normal neutral position but is a new easy neutral that develops in the direction of the original injury. Typically, it is in the opposite direction from the restriction in motion.

2. Introduce a force vector to the tissue. It may be from another part of the body directly focused on the restricted tissue (long lever) or it may be directly applied to the restricted tissue (short lever). The force vector is measured in ounces or grams of force.

3. Maintaining the force vector to the tissue, move the tissue from its ease toward and through the area of restriction. The movement may be introduced from the long lever contact point or it may simply be from a part of the body that will, if moved, produce movement in the restricted tissue.

4. As the restricted tissue moves through the previous area of restriction a crack or bump may be heard or felt although neither is necessary to effect release of the restriction.

5. Move the tissue back to its normal neutral position and retest.

To see how the short lever Still Technique looks in action, we will go through four applications.

(continued on page 33)
(continued from page 32)

Superior First Rib Treatment Seated:

1. The patient is seated.
2. The physician stands in front of or behind the patient.
3. Place the sensing hand so that the pad of the index finger is on the head of the affected first rib.
4. Place the operating hand on the top of the patient’s head.
5. The head and neck are sidebent and flexed toward the opposite side. This position produces tissue relaxation over the rib head (See Figure 1A).
6. The sensing finger introduces compression (a couple of ounces or 3-4 grams) to the rib head.
7. Maintaining the compression vector on the rib head, carry the head and neck along an arc into sidebending and extension on the side of the affected rib (See Figure 1B).
8. Return the head and neck to neutral. Retest.

Treatment Of Cervical Segment Type II-Like, Extended:

1. The patient is supine on a table.
2. The sensing finger is on the articular pillar of the affected cervical vertebra. The neck and basiocciput above the affected segment are supported on the palm and wrist of the sensing hand. The other hand cradles the opposite basiocciput.
3. The head and neck are extended, rotated right and slightly sidebent toward the side of ease (See Figure 2A).
4. Introduce and maintain a direct force vector to the articular pillar of the affected segment through your sensing finger.
5. Now rotate the head and neck toward the opposite side while simultaneously reducing extension and carrying the segment into flexion (See Figure 2B).
6. Once the position of the original restriction has been transversed, return the head and neck to neutral.
7. Retest the segment.
Treatment Of Thoracic Segment Type II, Flexed:

1. This version is usable for all thoracic vertebrae below T1. The example will be T4FRSr.

2. The patient is seated on a table with the physician standing behind.

3. The sensing hand is that of the same side as the ease of the somatic dysfunction (e.g., the physician's right in the case of T4FRSr). The pad of the index finger of the sensing hand is placed over the prominent transverse process of the affected segment.

4. The physician's operating arm (left in this case) is passed over the patient's opposite (left) shoulder around the superior chest wall and the physician's operating hand is placed on the shoulder on the side of the somatic dysfunction. This gives the physician adequate leverage to introduce the necessary flexion or extension, sidebending, and rotation.

5. The patient's thorax and spine are then flexed (in this case) and rotated toward the side of the somatic dysfunction (right) until the affected segment relaxes. Introduce light compression to the segment's transverse process with the sensing finger (See Figure 3A).

6. The operating arm simultaneously reduces flexion and rotates the spine through neutral into the previously restricted range (left sidebending and rotation with extension) (See Figure 3B).

7. Release compression on the segment and passively return the patient to neutral.

8. Retest.

Posterior Iliosacral Dysfunction (Posterior Innominate)
Treatment Supine:

1. The patient is supine on the table. The physician stands on the side of the dysfunctional innominate.

2. The patient's knee and hip on the side of the dysfunction are flexed to a little more than 90° and slightly adducted.

3. The physician's sensing hand (the hand closer to the patient's head) is placed under the patient's pelvis so that a sensing and compressing finger can be placed on the cephalad portion of the sacroiliac joint.

4. The physician's operating hand is placed on the patient's flexed knee (See Figure 4A).

(continued on page 35)
5. Introduce and maintain light compression to the SI joint with the sensing finger.

6. Now draw the patient’s knee lateral towards the physician, abducting the hip.

7. As the patient’s knee reaches its most lateral point in the arc (See Figure 4B) extend the leg.

8. Reassess with ASIS motion and relative ASIS placement.

Over the past couple of years, the short lever version of Still Technique has been used successfully by the author as an alternative method of treatment in a busy, full time musculoskeletal medical practice. More to the point, it has been demonstrated and taught in several courses successfully. It has several distinct advantages over the more “traditional” long lever version of the Still Technique.

Unlike the traditional long lever form of the Still Technique, the short lever version is easily mastered by physicians at all skill levels. It does not require maintaining long-distance focus during movement. If one can diagnose a tissue as restricted and can determine its position of ease, the short lever version is easily mastered. The ease is typically the starting position for indirect manipulative techniques like myofascial, counterstrain, and balanced ligamentous tension (BLT). The restrictions are those of the direct manipulative techniques like the high-velocity, low-amplitude (HVLA) technique and Muscle Energy. Learning to move smoothly from ease through restriction takes some time but is not particularly difficult. The Still Technique Manual 
5 contains many iterations of the technique applied to most of the tissues treated by OMT. Modifying these applications is a simple matter of directly applying the force vector directly to the restricted tissue using the sensing hand rather than at a distance from the operating hand.

There are a few applications found in The Still Technique Manual that are listed as “unmonitored.” These applications and the Still-Laughlin advanced technique will not work using the short lever version. The rest of the applications work equally well using the long lever and short lever versions of the Still Technique. Those trying to master this variant technique may show a natural tendency to put more force than is necessary into the local force vector and the movement. They may initially have trouble mastering the smooth arching movement that typifies a good application of the Still Technique. Other than that, this variant of the Still Technique has few limitations.

References

CONTINUING MEDICAL EDUCATION

This CME Certification of Home Study is intended to document your review of the CME article in this issue of The AAO Journal under the criteria for AOA Category 2-B continuing medical education credit.

CME Certification of Home Study

This is to certify that I, ____________________________,
(type or print name)
read the following article for AOA CME credit.

Name of article: “Introducing Short Lever Still Technique, a New Variant”

Author: Richard L. Van Buskirk, DO, PhD, FAAO


AOA Category 2-B credit may be granted for this article.

00____________
(AOA number)

Full name: ____________________________
(type or print name)

Street address: ____________________________

City: ____________________________

State and ZIP code: ____________________________

Signature: ____________________________

Complete the quiz to the right by circling the correct answers. Send your completed answer sheet to the American Academy of Osteopathy. The AAO will forward your results to the American Osteopathic Association. You must answer 75% of the quiz questions correctly to receive CME credit.

1. The new variant of the Still Technique described in this paper involves which of the following?
   a. Positioning the tissue in the true neutral position of the restricted tissue before moving it toward the restriction.
   b. Elimination of the force vector as unnecessary.
   c. Using a force vector applied directly to the tissue.
   d. Using traction as a force vector.
   e. Reversing the direction of movement so that the tissue is carried from restriction to ease.

2. Which of the following historical figures are cited as sources of information about what has become known as the Still Technique?
   a. Andrew Taylor Still
   b. C.P.E. McConnell
   c. Charles Hazzard
   d. All of the above

3. The long vector version of the Still Technique:
   a. Is so named because it requires large amplitude movements of the body in order to move the restricted tissue.
   b. Is difficult to teach and learn because it requires developing and maintaining a force vectored onto the restricted tissue during movement of its source.
   c. is the new alternative version of Still Technique proposed in this paper.
   d. is easy to learn and master.

4. Which of the following is not true of the short vector version of the Still Technique?
   a. It requires more force applied directly to the tissue.
   b. It should be easy for the student of osteopathy to master at any level of manipulative skill.
   c. It involves a force applied directly to the restricted tissue.
   d. It may have been in use by Dr. Still or his students.
   e. It involves moving the restricted tissue from ease through restriction.

Send page to:
American Academy of Osteopathy
3500 DePauw Blvd, Suite 1100
Indianapolis, IN 46268-1136
Communications@academyofosteopathy.org
Fax (317) 879-0563
15 Month Course in Classical Homeopathy for Osteopathic Physicians

September 2020 to December 2021
Hollistic Family Medicine, LLC

15 Month Course: Classical Homeopathy for Osteopathic Physicians
Instructor: Domenick J. Masiello, DO, DHt, C-SPOMM
Hilton Garden Inn, Danbury CT
120 credits of AOA Category 1-B CME anticipated
Learn more and register at: https://www.drmasiello.com/post-graduate-course

Basic Course in Osteopathy in the Cranial Field
May 15–19, 2020
University Place Hotel & Conference Center
310 SW Lincoln Street | Portland, OR 97201
Course Director: Duncan Soule, M.D.
40 Hours 1-A CME anticipated pending AOA approval
Tuition: $1,900 | Contact: SCTF  859-274-9519

Treating Compressions in the Cranium and Axial Spine
July 24–26, 2020
NYITCOM | Old Westbury, NY 11568
Course Director: Ken Graham, D.O.
18 Hours 1-A CME anticipated pending AOA approval
Tuition: $750 | Contact: Kenneth Graham, D.O.  918-406-5399

Osteopathic Contributions to the Health of Perception
April 3-5, 2020
4 Pier Rd. | Cape Porpoise, ME 04104
Course Director: Joseph Field, D.O.
20 Hours 1-A CME anticipated pending AOA approval
Tuition: $500 | Contact: Joseph Field, D.O.  207-967-3311

Visit our website for enrollment forms and course details: www.sctf.com
Course Description
This course will:

• provide basic and refresher knowledge and skills for program directors and core teaching faculty who supervise osteopathic manipulative treatment (OMT) in clinics.
• help MD students and graduates obtain the prerequisites for entering osteopathic-recognized residencies.
• be valuable for clinicians interested in adding OMT to their skill set.

Through a combination of lectures and hands-on workshops, attendees will learn the basics of osteopathic manipulative medicine, which encompasses osteopathic tenets, palpatory diagnosis and OMT.

The curriculum includes lessons on muscle energy technique; thoracic spine technique; articulatory techniques; functional techniques; myofascial release; and high-velocity, low-amplitude thrust.

Course registration includes one copy of Greenman’s Principles of Manual Medicine, 5th edition.

Course Times
Thursday from 1 to 6 p.m.
Friday and Saturday from 8 a.m. to 6 p.m.
Sunday from 8 a.m. to 4 p.m.

Continuing Medical Education
28 credits of AOA Category 1-A CME anticipated.

Meal Information
Morning coffee and tea will be provided Friday through Sunday, as well as lunch.

Registration Form
Introduction to Osteopathic Manipulative Medicine
June 4-7, 2020

Name: ________________________________ AOA No.: ____________
Nickname for badge: ________________________________
Street address: ____________________________
City: ____________________________ State: _____ ZIP: ____________
Phone: ____________________________ Fax: ____________________________
Email: ________________________________

By registering for this course, you agree to abide by the AAO’s code of conduct, photo and video release, and cancellation policy.

Register online at www.academyofosteofopathy.org, or submit this registration form and your payment by email to GWatts@academyofosteofopathy.org; by mail to the American Academy of Osteopathy, 3500 DePauw Blvd., Suite 1100, Indianapolis, IN 46268-1136; or by fax at (317) 879-0563.
May 15-19, 2020
Sutherland Cranial Teaching Foundation
Basic Course: Osteopathy in the Cranial Field
Course director: Duncan Soule, MD
University Place Hotel & Conference Center in Portland, OR
40 credits of AOA Category 1-A CME anticipated
Learn more and register at scft.com/courses

June 6-10, 2020
The Osteopathic Cranial Academy
June Introductory Course: Osteopathy in the Cranial Field
Course director: Richard F. Smith, DO
JW Marriott in Houston
Learn more and register at cranialacademy.org

June 11-14, 2020
The Osteopathic Cranial Academy
Annual Conference: Viola Frymann – Continuing the Legacy: Research and Practice
Conference director: Hollis H. King, DO, PhD, FAAO, FCA
Associate director: Deborah Heath, DO
JW Marriott in Houston, Texas
Learn more and register at cranialacademy.org.

July 15-19, 2020
Osteopathy's Promise to Children
Foundations of Osteopathic Cranial Manipulative Medicine
Course directors: R. Mitchell Hiserote, DO; Raymond J. Hruby, DO, MS, FAAODist; and Rebecca E. Giusti, DO
Osteopathic Center San Diego in San Diego, California
40 credits of AOA Category 1-A CME anticipated
Learn more and register at the-promise.org/cme.

Aug. 21-23, 2020
Osteopathy's Promise to Children
Level II: Osteopathic Cranial Manipulative Medicine
Course director: Raymond J. Hruby, DO, MS, FAAODist
Osteopathic Center San Diego in San Diego, California
24 credits of AOA Category 1-A CME anticipated
Learn more and register at the-promise.org/cme.

September 2020 to December 2021
Hollistic Family Medicine, LLC
15 Month Course: Classical Homeopathy for Osteopathic Physicians
Instructor: Domenick J. Masiello, DO, DHT, C-SPOMM
Hilton Garden Inn, Danbury CT
120 credits of AOA Category 1-B CME anticipated
Learn more and register at: https://www.drmasiello.com/post-graduate-course

Sept. 5, 2020
Osteopathy's Promise to Children
OMT for Systemic Disorders and Physiological Functions: Cardiopulmonary & Immune System
Course director: Hollis H. King, DO, PhD, FAAO, FCA
Osteopathic Center San Diego in San Diego, California
8 credits of AOA Category 1-A CME anticipated
Learn more and register at the-promise.org/cme.

Sept. 18-20, 2020
Osteopathy's Promise to Children
First Steps in Osteopathic Manipulative Medicine
Course director: Raymond J. Hruby, DO, MS, FAAODist
Osteopathic Center San Diego in San Diego, California
24 credits of AOA Category 1-A CME anticipated
Learn more and register at the-promise.org/cme.

Oct. 3, 2020
Osteopathy's Promise to Children
OMT for Systemic Disorders and Physiological Functions: Gastrointestinal & Nervous Systems
Course director: Hollis H. King, DO, PhD, FAAO, FCA
Osteopathic Center San Diego in San Diego, California
8 credits of AOA Category 1-A CME anticipated
Learn more and register at the-promise.org/cme.

Visit www.academyofosteopathy.org/affiliate-cme for additional listings.