

Implementation of a Resident-Led Osteopathic Manipulative Treatment Clinic in an Allopathic Residency

CPT Blake Busey, DO; CPT Jelaun Newsome, DO; CPT Tyler Raymond, DO, MPH; and MAJ Heather O'Mara, DO

From the William Beaumont Army Medical Center in El Paso, Texas (Dr Busey); Baumholder Health Clinic in Germany (Dr Newsome); and Madigan Army Medical Center in Tacoma, Washington (Drs Raymond and O'Mara). Drs Busey, Newsome, and Raymond were residents at Womack Army Medical Center in Fort Bragg, North Carolina, at the time of the study.

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Address correspondence to CPT Jelaun Newsome, DO, Department of Primary Care, Baumholder Army Health Clinic, Unit 23809 Box 52, APO AE 09034-3809.

E-mail: jelaun.k.newsome.mil@mail.mil

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Context: With the growing number of osteopathic physicians practicing in the United States and the creation of a single graduate medical education system, a continued need exists for focused education in osteopathic principles, philosophy, and treatment modalities in primarily allopathic residency programs.

Objective: To create and integrate a resident-led osteopathic manipulative treatment (OMT) clinic in an allopathic residency program.

Methods: After an informal needs assessment on the basis of resident survey data, a resident-led OMT clinic was created within a military allopathic family medicine residency program. A standard operating procedure, resident survey, and scheduling system were created by the residents for approval by the departmental and hospital leadership. Resident survey data pertaining to the time available to perform OMT, education, and faculty supervision of OMT were obtained before the clinic implementation and 1 year after implementation.

Results: Nine osteopathic residents were surveyed before the OMT clinic implementation to illustrate a need for continued osteopathic medical education, faculty support, and skill maintenance. Sixteen osteopathic residents were surveyed after the OMT clinic implementation. More residents indicated that the establishment of an osteopathic curriculum was important (3 of 9 in the preclinic survey vs 9 of 16 in the postclinic survey) and that the program promoted the use of OMT (0 of 9 in the preclinic survey vs 13 of 16 in the postclinic survey).

Conclusion: A resident-led OMT clinic can be successfully implemented, maintained, and expanded in an allopathic residency program by implementing an OMT curriculum, offering elective rotations, and encouraging regular use of OMT. The current project can be used as a framework for implementing an OMT clinic.

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On February 26, 2014, the American Osteopathic Association (AOA) and the Accreditation Council for Graduate Medical Education (ACGME) announced plans for a single graduate medical education (GME) accreditation system with anticipated completion in 2020.¹ The ability to maintain the continued training of osteopathic medical skill sets within this new accreditation system will continue to be assessed. In 2012, 7.2% of the practicing physicians in the United States were osteopathic physicians (ie, DOs), with 63,045 licensed osteopathic physicians.² With over 100,000 practicing DOs projected by 2020, emphasis must be placed on continuing osteopathic

medical education to succeed.² According to the *2013 Osteopathic Medical Profession Report*,² 36.9% of graduating DOs are entering family medicine and general practice, which are prime fields for continued skills development.²⁻⁶

Allee et al⁷ surveyed DO and allopathic medical (ie, MD) residents in AOA and ACGME family medicine programs. Their findings suggested that DO residents were more likely to use osteopathic manipulative treatment (OMT) if they attended AOA programs than if they attended ACGME programs.⁷ Furthermore, 70.9% of surveyed MD residents at ACGME programs were interested in learning and practicing OMT.⁷

Rubeor et al⁸ implemented an osteopathic curriculum into an existing MD family medicine residency in response to AOA Resolution 42 (A/2000), which permits DO residents who attend ACGME programs to apply for AOA approval of their internship year. In the study,⁸ an evening OMT clinic was created, and a monthly interest group with case-based reviews was initiated. The outcome measures were (1) internship year AOA approval rates and (2) group evaluations of the program's strengths and weaknesses. The residents who applied through Resolution 42 received AOA approval of their internship year. This study⁸ demonstrated maintenance of OMT skills and the ability to integrate OMT into the routine clinic setting. The weaknesses that were identified included a need for structured didactics, more varied precepting, and appropriate compensation for OMT.⁸

With the creation of a single GME accreditation system, the ability to maintain an osteopathic curriculum is uncertain. One proposed approach to maintaining osteopathic education is the implementation of an osteopathic curriculum that incorporates DO and MD learners as well as DO and MD leaders in family medicine education. The MD residents' interest in OMT and DO residents' interest in maintaining osteopathic skill sets provide an opportunity for reform in ACGME family medicine residency programs during the creation of the single GME accreditation system. In our military MD

family medicine residency, a resident-staffed OMT clinic was developed and integrated to provide continued longitudinal osteopathic principles and practice throughout residency. We hypothesized that with the implementation of the OMT clinic, resident satisfaction and use of OMT within routine family medicine clinic appointments would improve.

Methods

A preclinic survey, consisting of 15 questions, evaluated factors such as the use of OMT (ie, using OMT on a regular basis in family medicine clinic appointments), time available to perform OMT, curriculum, faculty and program support, prospects of continuing the OMT clinic, and interest in OMT elective rotations. The postclinic survey comprised the 15 questions from the preclinic survey as well as questions focusing on satisfaction with the OMT clinic, skill improvement, anticipated use of OMT after graduation, and amount of pain medications prescribed.

Surveys

The preclinic and the postclinic surveys were administered anonymously through an online survey tool. The surveys were not formally validated prior to administration because they were originally used as a process-improvement tool. They were, however, developed with the assistance of faculty with surveying and statistics experience. Statistical analysis was not performed because of the small sample size and the nonvalidated survey. Results did allow for comparative analysis rather than statistical analysis.

Standard Operating Procedure

An OMT clinic standard operating procedure was developed by the residents and presented to the department chief and the residency director. The standard operating procedure outlined weekly clinics that would be staffed by rotating DO residents and a dedicated supervising

attending DO. The standard operating procedure detailed the roles of the residency program director, medical director, staff OMT director, and resident OMT director. The residency program director appointed a staff OMT director and approved OMT electives and schedules. The medical director managed the budget and supplies and scheduled residents and staff in the OMT clinic. The staff OMT director guided the preceptor experience and provided oversight for the resident OMT director, who reviewed referrals and surveys, established OMT clinic process improvement, coordinated with the sports medicine rotation to enhance the MD observational status experience, and coordinated scheduling with the medical director.

Patient Encounters

The referral system consisted of consultations from resident physicians in the residency clinic, which comprised 40 primary care physicians and a clinic enrollment of approximately 14,000 patients. The consultations were reviewed by the resident OMT director and discussed as needed with the staff OMT director. Appropriate consultations were scheduled for the OMT clinic, and those that were not appropriate were discussed directly with the consulting resident or staff physician.

Patients scheduled for the OMT clinic were given the following 40-minute appointments: an initial evaluation, 3 subsequent treatments, and a reevaluation visit. The OMT performed at each visit was at the discretion of the DO on the basis of the presenting complaint and somatic dysfunction findings.

As part of the longitudinal experience and exposure, a monthly concurrent OMT skills workshop was implemented in the residency academic curriculum. Residents were selected on a rotating basis to present topics with the assistance of supervising faculty. Both DO and MD residents attended to improve skills, to gain an initial introduction, and to familiarize themselves with OMT. The long-term goal for the academic portion is progression toward a standardized curriculum.

Results

Preclinic Survey

Nine DO residents completed the preclinic survey, but not every surveyed resident answered all questions. Five of 9 residents indicated that access to a DO faculty member was important, 4 of 8 indicated a lack of faculty support, 5 of 8 indicated that the time for OMT in the standard clinic visits was insufficient, 5 of 8 indicated that the promotion of OMT by the program was insufficient, and 5 of 8 indicated insufficient access to preceptors. Of 9 residents, 5 indicated that they were unable to maintain their OMT skills, whereas 7 of 8 residents indicated that an OMT clinic would lead to increased use of their skills. Seven of 8 residents reported dissatisfaction with the amount of osteopathic education in the residency curriculum.

Postclinic Survey

A 1-year follow-up survey of 16 DO residents from 2013 was completed after implementation of the OMT workshops and clinic, in which 168 patients were seen (*Table*). An increased number of residents (n=16) were surveyed on the postclinic survey because of the addition of 7 DO residents in the group for the next year. These survey results were compared with the initial preclinic surveys. According to the survey results, residents indicated that the establishment of a DO curriculum was important (3 of 9 in the preclinic survey vs 9 of 16 in the postclinic survey). The residents reported that the program promoted the use of OMT (0 of 9 in the preclinic survey vs 13 of 16 in the postclinic survey) and that the residency helped them maintain their OMT skills (1 of 8 in the preclinic survey vs 12 of 16 in the postclinic survey). They continued to believe that the OMT clinic increased OMT use (7 of 8 in the preclinic survey vs 14 of 16 in the postclinic survey).

The residents continued to value access to DO preceptors (5 of 8 in the preclinic survey vs 10 of 16 in the postclinic survey). Compared with the initial survey results, which showed that 4 of 8 residents indicated a

Table. Summary of Preclinic and Postclinic Surveys Administered to Osteopathic Residents in an Allopathic Residency

Survey Item	Preclinic Survey (n=9) ^a				Postclinic Survey (n=16) ^a					
	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Disagree	Neither	Agree	Strongly Agree	
Osteopathic curriculum is important	3	0	3	3	0	1	5	1	5	4
OMT clinic is important	1	0	3	1	4	0	5	1	6	4
Osteopathic faculty access is important	1	0	3	3	2	0	4	2	5	5
Use OMT routinely	1	2	2	2	1	1	6	4	3	2
Sufficient time for OMT	1	4	3	0	0	1	6	5	2	1
Sufficient osteopathic faculty precepting	2	3	3	0	0	1	3	4	7	1
OMT clinic will increase my OMT use	0	0	1	2	5	1	2	4	9	0
Residency program helps me maintain my osteopathic skills	2	3	2	1	0	0	1	3	7	5
Residency program promotes the use of osteopathic skills	1	4	3	0	0	0	1	2	9	4
Residency program incorporates osteopathic lectures	3	4	1	0	0	0	0	6	5	5
Satisfied with faculty support	0	4	4	0	0	0	0	6	5	5
Satisfied with osteopathic education	2	5	1	0	0	0	2	3	7	4
Workshop would improve my osteopathic education	0	0	1	2	5	1	2	3	7	3
Workshop would improve my skills	0	0	1	3	4	0	3	5	5	3
Interest in osteopathic elective	0	0	3	0	5	1	2	1	5	7

^a Not all respondents answered each survey item.

Abbreviation: OMT, osteopathic manipulative treatment.

lack of faculty support, 10 of 16 residents responded that they now had faculty support. Although the residents believed that time for OMT in a standard clinic appointment was less than desirable, there was an increase in the opinion that a 20-minute encounter was sufficient at the 1-year follow-up (0 of 9 in the preclinic survey vs 3 of 16 in the postclinic survey). Of 16 residents, 11 indicated satisfaction with osteopathic education after 1 year of the OMT clinic, which improved from 0 of 9 at the initial survey.

The follow-up survey contained additional questions regarding satisfaction with the workshops, satisfaction with the OMT clinic, OMT skill progression, interest in OMT, frequency of pain medication prescription, and plans to use OMT after residency graduation. Of 16 residents, 10 were satisfied with the workshops overall and with the OMT clinic, 8 reported that the workshops improved their OMT skills, 10 believed that the OMT clinic improved their OMT skills, 7 reported prescribing fewer pain medications as a result of the OMT clinic, and 9 responded that they would use OMT after graduation.

Discussion

With the creation of the single GME accreditation system, the dilemma of fostering osteopathic education in MD residency programs will continue to be an area of concern. Our approach to this challenge was to implement a resident-staffed OMT clinic and a concurrent monthly OMT skills workshop.

In the present study, the trends in resident survey results showed improvement in perceptions of DO residents regarding teaching faculty, the residency program, and OMT use in clinical practice. The effects on MD residents and the residency program as a whole remain unclear because the MD residents were not surveyed.

The present study has several limitations. The sample size was small. This study was limited to a single residency program at a hospital-based clinic and lacked patient continuity for the resident physicians in

the OMT clinic. Patient continuity was hampered by conflict with other residency rotation requirements and routine clinic needs.

Future improvements in the OMT clinic include increased continuity between patients and resident physicians, more 1-on-1 training with attending physicians, and the addition of OMT electives. The present study may also be expanded to other residency programs to compare the effect of establishing OMT clinics in different settings. Other opportunities include the expansion of MD involvement within the OMT clinic, which would provide MD residents the opportunity to treat patients with the skills learned in the OMT workshops under the supervision of attending physicians or upper-level DO residents. Surveying the faculty in the future may be beneficial to assess faculty comfort in both training residents in and performing OMT and as a learning needs assessment. Another future investigation may be to expand the survey to assess the involvement and affect on MD residents, patient satisfaction, and outcomes.

Conclusion

The present study quantifies DO resident satisfaction before and after a newly implemented resident-staffed OMT clinic in an MD residency program. With the creation of a single GME accreditation system, understanding osteopathic principles and practice in an MD residency program becomes even more paramount to the ongoing success of the osteopathic medical profession. With the support of the MD residency leadership, faculty, and residents, it is possible to create a formal OMT clinic within the structure of a family medicine residency program to maintain osteopathic principles and practice in these programs and to increase DO and MD resident satisfaction. These efforts promise to enrich OMT practice and enhance DOs' ability to provide effective osteopathic care while applying longitudinal osteopathic principles and practice throughout an MD residency.

Author Contributions

Drs Busey, Newsome, and Raymond provided substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; all authors drafted the article or revised it critically for important intellectual content; all authors gave final approval of the version of the article to be published; and all authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

References

1. Single GME accreditation system. Accreditation Council for Graduate Medical Education website. <https://www.acgme.org/acgmeweb/tabid/445/GraduateMedicalEducation/SingleGMEAccreditationSystem.aspx>. Accessed October 28, 2015.
2. American Osteopathic Association. *2013 Osteopathic Medical Profession Report*. Chicago, IL: American Osteopathic Association; 2013. <https://www.osteopathic.org/inside-aoa/about/aoa-annual-statistics/Documents/2013-OMP-report.pdf>. Accessed October 2, 2015.
3. The single GME accreditation system. American Osteopathic Association website. <http://www.osteopathic.org/inside-aoa/single-gme-accreditation-system/Pages/default.aspx>. Accessed October 2, 2015.
4. Allopathic, osteopathic medical communities announce transition to unified GME accreditation. American Academy of Family Physicians website. <http://www.aafp.org/news/education-professional-development/20140228gmeaccredmerge.html>. Accessed October 2, 2015.
5. Young A, Chaudhry HJ, Thomas JV, Dugan M. A census of actively licensed physicians in the United States, 2012. *J Med Reg*. 2013;99(2):11-25.
6. American Osteopathic Association, American College of Osteopathic Family Physicians, and American Academy of Osteopathy. *Basic Standards for Residency Training in Integrated Osteopathic Family Practice and Manipulative Treatment/Neuromusculoskeletal Medicine*. Chicago, IL: American Osteopathic Association; 2011. <http://www.osteopathic.org/inside-aoa/accreditation/postdoctoral-training-approval/postdoctoral-training-standards/Documents/basic-standards-for-residency-training-in-integrated-family-practice-neuromusculoskeletal-medicine.pdf>. Accessed October 2, 2015.
7. Allee BA, Pollak MH, Malnar KF. Survey of osteopathic and allopathic residents' attitudes toward osteopathic manipulative treatment. *J Am Osteopath Assoc*. 2005;105(12):551-561.
8. Rubeor A, Nothnagle M, Taylor JS. Introducing osteopathic medical education in an allopathic residency. *J Am Osteopath Assoc*. 2008;108(8):404-408.

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