The West Virginia School of Osteopathic Medicine in Lewisburg instituted a free, community-based medical clinic in spring 1995 as part of an institution-wide Osteopathic Principles and Practices Integration Project. Under this initiative, osteopathic medical students are provided with 26 hours of supervised experience in osteopathic palpatory diagnosis and osteopathic manipulative treatment. The educational goal of the clinic is to increase the confidence of osteopathic medical students in their technical abilities in using osteopathic manipulative medicine to diagnose and treat community patients. Based on a variety of results from student-completed surveys, the authors conclude that the osteopathic manipulative medicine student clinic at West Virginia School of Osteopathic Medicine has met its goal of increasing student confidence in the application of these skills.

For more than a century, osteopathic medical education has been unique from traditional Western medical training, with one of the most prominent differences between the two curricula being training in osteopathic principles and practice (OPP). After pharmacology was added to the osteopathic curriculum in 1913, the two curricula have become more alike, however.1

In 1992, the academic dean of the West Virginia School of Osteopathic Medicine (WVSOM) in Lewisburg, James R. Stookey, DO, undertook an effort to strengthen the distinctively osteopathic medical education that students at WVSOM receive. He formed the OPP Integration Task Force “to create a curriculum that will graduate physicians who utilize the osteopathic philosophy in their clinical practices and provide osteopathic manipulation to their patients.”2

The task force made a series of recommendations for changes to the 4-year curriculum, faculty and staff policies, as well as the physical facility.2 One of many recommendations was the creation of a free, community-based osteopathic manipulative medicine (OMM) student clinic as part of the OPP curriculum. The rationale for this particular recommendation was that, by providing students with supervised and successful experiences in OMM with community patients—rather than simply diagnosing and treating one another, as is the traditional practice in osteopathic medical school—students would be more likely to continue to practice OMM during their residency training and, eventually, in clinical practice.

The task force’s recommendations were approved with minor revisions. Implementation was phased in beginning in spring 1994, with the first student clinic held in spring 1995. Faculty and staff at WVSOM have now had 11 years of experience with the student clinic.

Curricular Considerations

At the time of project implementation, the OPP course at WVSOM included 186 hours of student contact time during the first 2 years of the 4-year curriculum, excluding 4 hours of osteopathic medical history and 13 hours of lectures integrating OPP into the organ-systems–based curriculum.

Dr Stookey, who has since stepped down as academic dean of WVSOM, directed the OPP Integration Task Force to make recommendations for curriculum changes that required no increase in faculty, curricular time, or funding. Given these constraints, increasing the time allotment of faculty and staff to the existing OPP course was not under consideration. The OPP course was, therefore, revised to accommodate the creation of the student clinic by reducing the amount of time devoted to traditional lectures and laboratory sessions by 26 hours.

The OPP curriculum at WVSOM is organized by technique (or “treatment modality”) in the first year. The osteopathic manipulative (OM) techniques taught during students’ first year include counterstrain, soft tissue, postural evaluation and treatment, myofascial release, visceral/ventral techniques, articulatory technique, and osteopathy in the cranial field. After completion of the first year of osteopathic medical school, WVSOM students are able to evaluate and treat the entire patient with multiple OM techniques.

During their sophomore year, WVSOM students are taught muscle energy and high-velocity/low-amplitude thrust techniques by body region, as well as a breadth of clinical and...
West Virginia School of Osteopathic Medicine
OSTEOPATHIC MANIPULATIVE MEDICINE STUDENT CLINIC
PATIENT INFORMATION

What was your patient’s primary problem area(s)? Rate in order of severity.

<table>
<thead>
<tr>
<th>Body Region</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
<th>9th</th>
<th>10th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cervical spine</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thoracic spine</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lumbar spine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sacrum</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ribs</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Pelvis</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper extremity</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Lower extremity</td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

Primary problem type:
- Structural [ ]
- Visceral with structural reflex [ ]
- Other [ ]

Which treatment modalities did you use?
- Counterstrain [ ]
- Cranial/sacral [ ]
- High velocity/low amplitude [ ]
- Muscle energy [ ]
- Myofascial release [ ]
- Visceral [ ]
- Other [ ]

How do you think your patient responded to this treatment?
- Condition unchanged [ ]
- Condition better [ ]
- Condition worse [ ]

Is your patient scheduled for another appointment?
- Yes, the patient is scheduled for another visit. [ ]
- No, but the patient may schedule at a later time. [ ]
- No, the patient will not be returning. [ ]

Would you feel comfortable (adequate) treating this patient on your own in your office?

<table>
<thead>
<tr>
<th>Student No.</th>
<th>Yes</th>
<th>No</th>
<th>Maybe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1 (1 of 2). The first of two forms that comprise the patient records for sophomore students participating in the student osteopathic manipulative medicine clinic at West Virginia School of Osteopathic Medicine in Lewisburg, the Patient Information form.
Figure 1 (2 of 2). The second of two forms that comprise the patient records for sophomore students participating in the student osteopathic manipulative medicine clinic at West Virginia School of Osteopathic Medicine in Lewisburg, the Student Log — Sophomore Student Clinic form.
systemic-integration knowledge to apply during patient evaluation and in an osteopathic manipulative treatment (OMT) patient encounter.

The content of the reallocated lectures and laboratories was incorporated into the rest of the OPP course, primarily by teaching muscle energy and high-velocity/low-amplitude thrust techniques together by body region, rather than separately by technique, as they had been taught previously.

These revisions to the OPP course allowed for the inclusion of three 2-hour sessions in 3 consecutive weeks at the end of each students’ first year, and a more comprehensive series of 10 sessions at the end of their sophomore year.

The administration of WVSOM committed a former clinic area for this student training program. The facility houses 26 examination rooms, eight faculty consultation areas, a waiting room, and a reception area. Each examination room is furnished with a table, stool, riser (for those rooms with non-mechanical tables), and a supply cabinet. This space is used by other WVSOM programs for additional clinical training opportunities—for example, a student-run women’s health screening program, men’s health screening program, Objective Standardized Clinical Examinations for sophomore and junior students, and sports physicals are all held in this clinic, as are practical examinations for several other courses.

The cost for the student clinic is supported entirely by WVSOM. No fees are charged to the patients. The only additional expenses of the program for WVSOM are in advertising (discussed further in the “Patient Recruitment and Requirements” section) and supplies. Various campus organizations have supported the student clinic in previous years by donating percussion vibrators, rolling stands for percussion vibrators, and artwork for the walls.

Learning objectives were established for the student clinic. At the end of this component of the OPP curriculum, WVSOM students should be able to:
(1) Perform an integrated osteopathic history and physical examination;
(2) Create a differential diagnosis and an integrated osteopathic treatment plan that includes OMT when appropriate;
(3) Document the patient encounter appropriately, using a WVSOM form (Figure 1) based on the SOAP (Subjective, Objective, Assessment and Plan) Note Form;
(4) Make a concise patient case presentation to the supervising physician;
(5) Demonstrate professional behavior;
(6) Manage time effectively in the patient care setting; and
(7) Demonstrate professional dress and grooming.

Sophomores receive one lecture and laboratory on documentation and coding for OMT and a second lecture and laboratory that discusses informed patient consent and patient privacy regulations. Students are also given case examples of patients with musculoskeletal pain secondary to underlying medical problems.

An osteopathic structural examination is required from first-year and sophomore students, along with a treatment plan that includes OMT, unless contraindicated. The sophomores are expected to perform a detailed patient history and a problem-focused physical examination. All students are allowed and encouraged to bring and use reference texts during the student clinic. Heel lifts, patient educational materials, and percussion vibrators are available in the student clinic. Students are encouraged to contact the patient’s referring physician with concerns and requests for additional diagnostic tests—though it is up to the referring physician to decide if he or she believes additional testing is necessary.

Student Clinic Protocols

Patient Recruitment and Requirements

Referring physicians are made aware that this program is designed as an OMM clinic and that no medical care beyond osteopathic palpatory diagnosis and OMT will be provided.

A physician referral is required for all patients seeking medical care in the student clinic. Patients who seek care in the student clinic repeatedly are required to bring a new referral with them for each academic year. This requirement is strictly adhered to and is intended as a safeguard for patients and their family physicians, ensuring that the physicians are aware of their patients’ involvement in the program at WVSOM. In addition, it is an opportunity for area physicians to provide direction to WVSOM students about what factors and conditions they wish students to address in patient evaluation and treatment. Letters of invitation for patient referrals are sent to area physicians 6 weeks before the first session of the sophomore student clinic. Advertisements are printed at regular intervals in one daily area newspaper (The West Virginia Daily News), several weekly area newspapers (The Appalachia Advertiser, The Greenbrier Valley Ranger, The Monroe Watchman, and The Mountain Messenger), and one monthly area newspaper (Body, Mind & Spirit) to inform the public of this opportunity. Newspaper advertisements are placed at 5 weeks before the first session of the sophomore student clinic, and up to 8 weeks after the student clinic has begun.

Most patients referred to the student clinic have chronic musculoskeletal problems. This population provides WVSOM students with supervised clinical experience in evaluating and treating patients with easily diagnosed areas of somatic dysfunction.

No patients who have filed or are planning to file a lawsuit related to their chief complaint(s) (ie, the reason(s) they are being referred) are accepted into the student clinic. Patients with closed Workers’ Compensation claims related to their chief
Inclusion criteria*:  
- Physician referral for patient’s chief complaint  
- Informed consent form signed and dated by the patient  
- Health Insurance Portability and Accountability Act form signed and dated by the patient

Exclusion criteria:  
- Pending lawsuit for patient's chief complaint  
- Unresolved Workers’ Compensation claim for chief complaint

* Physician referrals and patient informed consent forms must be renewed annually each academic year that patients wish to obtain treatment at the student clinic at West Virginia School of Osteopathic Medicine (WVSOM) in Lewisburg.

† The Health Insurance and Accountability Act form has been required at the student clinic since May 2003.

‡ Patients meeting inclusion criteria and none of the other exclusion criteria can receive treatment from WVSOM students at the student clinic if they have a resolved (closed) Workers’ Compensation claim for the chief complaint.

Figure 2. Patient inclusion and exclusion criteria for participation in the student osteopathic manipulative medicine clinic at West Virginia School of Osteopathic Medicine in Lewisburg.

Patients are required to sign a consent form each year that they participate in the student clinic program. In this form, patients verify that they meet inclusion criteria and do not fall under any of the exclusion criteria (Figure 2). Students are required to review the consent form with the patient the first time he or she presents to the student clinic each year, answering any of the patient’s questions. In addition, as of May 2003, patients are required to sign a Health Insurance Portability and Accountability Act (HIPAA) form.

West Virginia School of Osteopathic Medicine provides liability insurance coverage for the teaching activities of all physicians supervising students in the student clinic—and for all osteopathic medical students participating in this educational experience. There has been one reported minor complication to a community patient as a consequence of receiving OMT in the student clinic over the past 11 years. There have been no liability claims against WVSOM, its employees, or students related to the student clinic.

Faculty and Student Scheduling

The student clinic is offered as a weekly split laboratory, with half of the class in the student clinic from 2:00 pm to 4:00 pm and the other half from 4:00 pm to 6:00 pm.

The students work in self-selected teams of two, with the students selecting their partners from classmates in the same assigned time slots.

Initially, only one patient is scheduled per student pair for the full 2-hour time slot. Within a few weeks, the patients become familiar with the students, and the students become more adept and efficient in delivering patient care. At the recommendation of the supervising physician, student pairs are advanced to providing care to two patients in their 2-hour time slot. The apparent luxury of 1 to 2 hours with one patient allows time for students to develop competence and confidence in the many objectives that are included in the student clinic experience. This protocol also allows for those times when a student pair must wait while the supervising physician is meeting with another student pair.

After approximately six student clinics, the student groups are switched so that those who were scheduled from 2:00 pm to 4:00 pm then have student clinic from 4:00 pm to 6:00 pm and vice versa. If one student pair had been seeing one patient regularly during the first six sessions of the student clinic, that patient is then scheduled with another student pair to provide students with exposure to the greatest number of patients possible.

Student pairs are also rotated among the faculty so that students gain exposure to different perspectives from supervising physicians. The students have the same supervising physician for 4 to 5 weeks initially, which allows for a smooth transition from the lecture and laboratory-based OPP curriculum to the community clinic experience. Thereafter, the students are assigned to different supervising physicians every 3 weeks for the remainder of the program.

At the end of the 10-week sophomore student clinic, sophomore students and faculty select patients for referral into the 3-week student clinic operated by first-year students. Only patients who have been evaluated by the sophomore students are eligible for diagnosis and treatment by first-year students. In addition, patients who are selected for inclusion in the student clinic operated by first-year students must be willing to be present for treatment at the student clinic for all of the 3 weeks that first-year students are conducting clinic sessions.

Although first-year students are not yet trained to perform the patient history and physical examination required at the initial visit at the clinic, they are able to provide osteopathic diagnosis and treatment for problems already evaluated medically by the sophomore students under the supervision of WVSOM faculty physicians.

Only one patient is assigned to a first-year student pair for the entire 2-hour session during all 3 weeks that the first-year students operate the clinic.

Methods of Student Evaluation

One osteopathic physician supervises three to four pairs of students in each 2-hour student clinic laboratory session.
The student pair meets with the supervising physician for a second time after the students have completed their approved treatment plan, at which time the supervising physician evaluates the effectiveness of the pair’s treatment and provides additional assistance if needed.

The third encounter the pair of students has with the supervising physician occurs after the students have completed their “charting.” At this final visit for the clinic session, the students’ use of the patient record is critiqued by the supervising physician, and the final grade for that day’s work is reviewed and signed by the supervising physician.

Although the student clinic is graded pass/fail for first-year students based on participation, faculty supervisors grade sophomore students using a five-point scale (unacceptable, poor, fair, good, superior) on the following seven items: history and physical; diagnosis and treatment; quality of charting; presentation of patient; professional behavior; punctuality and time management; and professional dress and grooming. Faculty supervisors completing the Physician Evaluation Form for their sophomore students are required to list at least one area in which the students, as a pair, excelled and one area in which they could improve based on that day’s work. As noted previously, supervising physicians review the grade with the student pair at the end of each day’s clinic. The students then sign the form acknowledging that they have been informed of the session grade. They are also given the opportunity to write comments on the form, if desired.

The patient evaluation form (Figure 3) requests that patients evaluate students’ performance in their responses to five survey questions. Finally, patients are also asked to rate the condition of their chief complaint after OMT as better, unchanged, or worse.

The average grades received for each student pair during the 10-session series of the sophomore student clinic comprise 60% of a student’s final grade for the OPP course in the spring semester. A comprehensive written examination covering the 2-year OPP curriculum comprises the remaining 40% of students’ grades for that semester.

### Results

For each patient seen, the student pair completes two forms that gather patient demographic information and provide documentation by patient body region regarding the location of the greatest severity of somatic dysfunction, OM techniques used, and the total number of body regions treated (Figure 1).

For spring 2003, data were analyzed for the six sophomore student clinics that took place before April 15, 2003. During these six student clinics, 441 patient encounters were recorded. The average age of the patients seen was 58 years, with an age range between 29 years and 93 years. There were slightly more than twice as many female patients seen as male patients.

### Table 1

**Osteopathic Manipulative Medicine Student Clinic*: Somatic Dysfunction in Patients (N=441) by Body Region**

<table>
<thead>
<tr>
<th>Body Region</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head</td>
<td>80 (18)</td>
</tr>
<tr>
<td>Spine</td>
<td></td>
</tr>
<tr>
<td>Cervical (Neck)</td>
<td>209 (47)</td>
</tr>
<tr>
<td>Thoracic</td>
<td>268 (61)</td>
</tr>
<tr>
<td>Lumbar</td>
<td>208 (47)</td>
</tr>
<tr>
<td>Sacrum</td>
<td>83 (19)</td>
</tr>
<tr>
<td>Ribs</td>
<td>123 (28)</td>
</tr>
<tr>
<td>Pelvis</td>
<td>160 (36)</td>
</tr>
<tr>
<td>Extremities</td>
<td></td>
</tr>
<tr>
<td>Upper</td>
<td>146 (33)</td>
</tr>
<tr>
<td>Lower</td>
<td>151 (34)</td>
</tr>
</tbody>
</table>

* Results shown are from six sessions of the sophomore osteopathic manipulative medicine student clinic at West Virginia School of Osteopathic Medicine in Lewisburg in spring 2003.
The most common complaint of patients presenting to the student clinic was pain in the cervical spine (20.14%). The thoracic spine and upper extremities tied as the second most common body region for the chief complaint (13.89%) addressed by students. The thoracic spine was the region most commonly treated (61%), followed by cervical spine and lumbar spine at 47% each (Table 1).

Myofascial release (27.87%) and muscle energy (16.08%) were the two OM techniques most commonly used in patient treatment. Most (56.69%) patients received OMT for pain and discomfort in three to four body regions. These data are similar to findings reported by Song et al5 in 1998 that muscle energy and myofascial release were the most “important” modalities in the OPP curricula of osteopathic medical schools, and that the head and cervical regions were the most commonly treated body regions.

In October 1995, survey responses from the first WVSOM graduating class to participate in the student clinic (class of 1997) and the last WVSOM graduating class before the student clinic was implemented (class of 1996) were compared. Students were asked to rate their ability to establish patient rapport, perform a patient history and physical examination, and perform OMT in the first week of their junior rotation, and their ability to apply these skills “right now” (ie, 4 months into their rotation). Although retrospective reports admittedly have limited validity, the results of this survey suggest that students in the WVSOM class of 1997 (ie, the first class for whom the student clinic was included in the curriculum) began their rotations with the same 100% confidence in establishing patient rapport that the students without the student clinic developed only after 4 months on clinical rotations (Table 2).

One item on the Patient Information Form (Figure 1, Part 1) asks students, “Would you feel comfortable (adequate) treating this patient on your own in your office?” Possible student responses are “Yes,” “No,” or “Maybe.” For the final sophomore student clinic in April 2003, students responded “Yes” to this item for 100% of patients seen. Although high student confidence levels cannot be attributed completely to the WVSOM student clinic experience, course faculty members believe the student clinic was essential to the development of this level of confidence in our 2005 graduates.

Each spring, students at the end of their sophomore and senior years are asked to complete anonymous surveys regarding the degree to which they feel the student clinic experience has met the stated goals of the project (Figure 4). In May 2003, at the end of the academic year, 87% of sophomores (class of 2005) indicated that the student clinic “completely” or “satisfactorily” met the program objective of establishing patient rapport.

### Table 2

<table>
<thead>
<tr>
<th>Graduating Class and Length of Time in Family Medicine Rotation</th>
<th>Outcome Self-Rated as Excellent, Very Good, or Good, No. (%)</th>
<th>Clinical Skills in Delivering Osteopathic Manipulative Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ 1996 (n=31+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Rotation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Week 1</td>
<td>28 (90)</td>
<td>25 (81)</td>
</tr>
<tr>
<td>– ≥ 4 mo</td>
<td>31 (100)</td>
<td>22 (71)</td>
</tr>
<tr>
<td>■ 1997 (n=42+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Rotation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Week 1</td>
<td>42 (100)</td>
<td>34 (81)</td>
</tr>
<tr>
<td>– ≥ 4 mo</td>
<td>42 (100)</td>
<td>36 (86)</td>
</tr>
</tbody>
</table>

* Approximately 4 months after graduation from West Virginia School of Osteopathic Medicine (WVSOM) in Lewisburg, residents were asked to rate on a five-point scale (excellent, very good, good, fair, or poor) their abilities at the beginning of their junior clinical rotations and their abilities “right now” in establishing rapport with patients, and their clinical skills in delivering osteopathic manipulative treatment to their patients.
† The class of 1996 was the last graduating class of WVSOM to complete their training before the introduction of the osteopathic manipulative medicine student clinic in the medical school curricula. The class of 1997 was the first graduating class to have experienced the osteopathic manipulative medicine student clinic at WVSOM.
‡ For the class of 1996, seniors at the time of the survey, investigators received 31 responses out of a possible 63 for a response rate of 47%.
§ For the class of 1997, juniors at the time of the survey, investigators received 42 responses out of a possible 64 for a response rate of 66%.
Figure 3. The evaluation form provided to patients who have received care in the student osteopathic manipulative medicine clinic at West Virginia School of Osteopathic Medicine in Lewisburg. Patient evaluations are worth 10% of the student grades for each clinic session.
West Virginia School of Osteopathic Medicine
OSTEOPATHIC MANIPULATIVE MEDICINE STUDENT CLINIC
PRACTICE EXPECTATIONS AND ATTITUDES
(END OF YEAR 2 – MAY 2003)

The Osteopathic Principles and Practice Integration Committee has requested your feedback regarding the Osteopathic Manipulative Medicine (OMM) Student Clinic. The goals of the OMM Student Clinic are stated below. Please give us your opinion as to how well these goals were accomplished by the end of the second year.

<table>
<thead>
<tr>
<th>Student Clinic Goals</th>
<th>Degree of Accomplishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ability to establish rapport with a patient.</td>
<td>☐</td>
</tr>
<tr>
<td>2. Ability to do a time efficient, problem-focused musculoskeletal examination.</td>
<td>☐</td>
</tr>
<tr>
<td>3. Ability to integrate an osteopathic palpatory examination into the patient physical examination.</td>
<td>☐</td>
</tr>
<tr>
<td>4. Ability to determine the indications and contraindications for osteopathic manipulative treatment (OMT) in a patient.</td>
<td>☐</td>
</tr>
<tr>
<td>5. Ability to perform OMT on a patient, using techniques that are appropriate for the patient.</td>
<td>☐</td>
</tr>
<tr>
<td>6. Ability to document the patient encounter correctly, including the osteopathic palpatory examination and OMT.</td>
<td>☐</td>
</tr>
</tbody>
</table>

Please add any additional comments you may have about the usefulness of the OMM Student Clinic below, attaching additional sheets as necessary:
______________________________
______________________________
______________________________
______________________________
______________________________
______________________________

Figure 4. Practice Expectations and Attitudes survey distributed to students at the end of their sophomore year after completing 10 sessions in the student osteopathic manipulative medicine clinic at West Virginia School of Osteopathic Medicine in Lewisburg.
assisting them in their ability to determine the indications and contraindications for OMT in a patient, whereas 93% indicated that the clinic met the program objective by improving their ability to perform OMT on a patient, using techniques appropriate for the patient. When the same survey was administered to graduating seniors, 95% indicated the student clinic “completely” or “satisfactorily” met those same two objectives. These results indicate that the students’ positive perception of the effectiveness of the student clinic experience does not diminish with time (Table 3).

**Comments**
Faculty and students at WVSOM regard the OMM student clinic program, which provides a vehicle within the WV-SOM OPP curriculum for students to provide osteopathic palpatory diagnosis and OMT to community patients, as a success in that it has allowed students to develop greater confidence in their OMM abilities. To accomplish this goal, it was necessary for WVSOM administrators and faculty to reorganize the required OPP course so that 26 hours of traditional lecture and laboratory (ie, students practicing OMM on students) were reassigned to the student clinic. In addition, administration at WVSOM dedicated vacant clinic space to this and other community-based student education programs and hired area physicians to assist in supervising students in the student clinic. Whether participation in the student clinic translates into greater use of OMM in clinical practice for WVSOM graduates who completed the revised

---

**Table 3**
Osteopathic Manipulative Medicine Student Clinic: Spring 2003 Survey Results from Class of 2003 and Class of 2005*

<table>
<thead>
<tr>
<th>Program Objectives</th>
<th>Class of 2003 (n=58†)</th>
<th>Class of 2005 (n=70‡)</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Establish rapport with a patient.</td>
<td>58 (100)</td>
<td>69 (99)</td>
</tr>
<tr>
<td>□ Complete a time-efficient, problem-focused musculoskeletal examination.</td>
<td>54 (93)</td>
<td>63 (90)</td>
</tr>
<tr>
<td>□ Integrate an osteopathic palpatory examination into the standard patient physical examination.</td>
<td>50 (86)</td>
<td>63 (90)</td>
</tr>
<tr>
<td>□ Determine the indications and contraindications for osteopathic manipulative treatment (OMT) in a patient.</td>
<td>56 (95)</td>
<td>61 (87)</td>
</tr>
<tr>
<td>□ Perform OMT on a patient using osteopathic manipulative techniques that are appropriate for the patient.</td>
<td>55 (95)</td>
<td>65 (93)</td>
</tr>
<tr>
<td>□ Document the patient encounter correctly, including osteopathic palpatory examination and OMT.</td>
<td>52 (90)</td>
<td>67 (96)</td>
</tr>
</tbody>
</table>

* In spring 2003, the graduating class and the class of 2005 at West Virginia School of Osteopathic Medicine (WVSOM) in Lewisburg were asked to complete a survey in which they were asked to rate, on a four-point scale (completely, satisfactorily, partially, or not at all), their experiences in the WVSOM osteopathic manipulative medicine student clinic vis-à-vis the stated objectives of the program.
† For the class of 2003, seniors who were about to graduate from WVSOM, investigators received 58 responses out of a possible 71 for a response rate of 80%.
‡ For the class of 2005, who were completing their sophomore year at WVSOM, investigators received 70 responses out of a possible 75 for a response rate of 90%.
The development of the student clinic: David R. Essig-Beatty, DO; Catherine Hayes, DO; David L. Hyler-Both, DO; and William W. Lemley, DO.

References

Conclusion
The OMM student clinic at WVSOM was created to provide osteopathic medical students with supervised experience in osteopathic evaluation and treatment of community patients before leaving for clinical rotations, in order to solidify student confidence in practicing OMM. Based on the results of our surveys, we feel this goal has been accomplished. If student confidence in OMM continues, students who have had the benefit of the WVSOM student clinic will presumably be more likely to maintain their skills and confidence in OMM through their residency training years and incorporate it into their clinical practices. This positive outcome would fulfill the goal of the WVSOM OPP Integration Project, as well as that of the recently established American Osteopathic Association Core Competency 1, Osteopathic Philosophy and Osteopathic Manipulative Medicine: “...train a skilled and competent osteopathic practitioner who remains dedicated to life-long learning and to practice habits in osteopathic philosophy and manipulative medicine.”

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