Professional identification and affiliation of the 1992 graduate class of the colleges of osteopathic medicine

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This survey of the 1992 graduates of colleges of osteopathic medicine included questions regarding their identification with the osteopathic medical profession from application to medical school through residency training and practice. Findings of the study demonstrate that a large majority of graduates regard the profession positively. However, many express concerns about the limited training in advanced osteopathic manipulative skills, with several indicating a low level of confidence in integrating osteopathic techniques into clinical practice. Study respondents also assert that the osteopathic medical profession has yet to effectively project and promote its distinctiveness to the general public. These factors affect the overall identification and affiliation of the respondents to the osteopathic medical profession.

Previous anecdotal and research reports suggested that a migration of graduates into nonosteopathic postgraduate training programs and the de-emphasis of osteopathic manipulative medicine in clinical training sites have created an identity crisis within the profession. These reports stimulated the undertaking of this study. Challenges to the profession addressed in this paper include: (1) requiring advanced training in osteopathic manipulative medicine after the second year of medical school; (2) creating an awareness of the need for increased professional visibility; (3) producing effective public relations strategies to portray the osteopathic medical profession accurately; and (4) generating sufficient funds to carry out these strategies.

(Key words: Osteopathic physician identity, osteopathic manipulative medicine, distinctiveness, public relations)

In 1994, osteopathic physicians (DOs) represented more than 5% of physicians in the United States.¹ Unlike the majority of their allopathic medical col-

leagues (MDs), DOs continue to contend with defining what osteopathic medicine stands for, what they actually do, what qualifications they possess, how they differ from MDs, and how they fit into the overall scheme of healthcare.² In the early 1990s, Meyer and Price^{3,4} asserted that the osteopathic medical profession was facing an internal crisis that threatened its structural integrity as graduates turn increasingly to allopathic postgraduate training programs. This raises a concern about the allegiance of osteopathic medical graduates to their profession as evidenced by their style of practice and their membership in professional

organizations. Other researchers^{2,5} suggest that osteopathic medicine suffers from limited public awareness and recognition of its distinctiveness and contributions to the healthcare of diverse US populations.

They have also questioned the capacity of osteopathic medicine to endure another 100 years in the face of these challenges. Most of these researchers emphasize the need for effective action that will ensure the future of this profession whose members provide healthcare for more than 25 million Americans.⁶ There is a dearth of research exploring the views of the recent graduates of osteopathic medical schools regarding their identification and affiliation with the osteopathic medical profession. This article attempts to address these concerns.

When Andrew Taylor Still, an MD, founded this unique form of medical care (then termed osteopathy) in 1874, it was out of frustration after the death of two of his own children and an adopted child due to spinal meningitis and his distrust of the existing medical practices of that era.⁷ In his search for a different way of healing, Dr Still disavowed the common use of addictive drugs, purgatives, emetics, toxic medicinals, and blood letting. Although trained in the prevailing medical techniques of his time, Dr Still developed a controversial philosophic medical approach that suggested that "within the human body, there is a capacity for good health. If this capacity is recognized and normalized, disease can be both prevented and treated."⁸

With this concept, he favored a treatment method based mostly on the manipulation of the body to improve function and alleviate disease. Despite opposition from the medical and scientific community of that period, and in the midst of flourishing alternative medicine methods, Dr Still's model attracted great attention and numerous followers. He established a successful practice in Missouri, treating many patients who were considered incurable by traditional medicine. He subsequently sought to teach others his philosophy and the techniques of osteopathic manipulation.

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Today, osteopathic philosophy continues to thrive. It embodies the following key principles:

- the human body is a unit that possesses a capacity for self-regulation, self-healing, and health maintenance;
- there exists a reciprocal interrelationship between the body's structure and function; and
- the use of a rational treatment, including manipulative treatment to restore the body's maximal functional capacity, enhance wellness, and assist in recovery from injury and disease.⁹

With almost 40,000 osteopathic physicians in practice today, and an estimated 63,000 licensed osteopathic physicians by the year 2010, osteopathic medicine can be considered one of the fastest growing healthcare professions in the United States.¹⁰

The purpose of this research is twofold. First, to provide quantitative data for the osteopathic medical profession as a whole in order to replace anecdotal suppositions about the relationship of recent graduates to the profession. And second, to compare the use of osteopathic manipulative treatment (OMT) by the 1992 graduating class of all colleges of osteopathic medicine (COMs) and the use of OMT by other demographic groups in osteopathic medicine. This research was conducted as part of the requirements for the completion of the American Osteopathic Association Health Policy Fellowship Program and was approved by the Michigan State University Committee on Research Involving Human Subjects.

Subjects and method

Members of the 1992 graduate class of all the COMs were surveyed. These physicians graduated in the centennial year of the establishment of the first school of osteopathy. Members of this class, in conjunction with other recent graduates, embody the future of the osteopathic medical profession. Thus, they will be in a position to have an impact, influence, and determine the future direction of the profession. This class also possesses another unique characteristic: it is the most diverse of all previous graduating classes in terms of the racial and ethnic groupings.¹¹

We hypothesized that independent variables such as personal background, desire to become a physician, family educational background, and involvement in medicine, as well as their osteopathic medical education itself, could contribute to an individual's desire to identify with the osteopathic medical profession. The survey included questions regarding professional awareness that began prior to, and extended through, the medical school years to the young professionals' affiliation with the profession. A literature review was conducted, and several consultations were held with members of the Michigan State University osteopathic medical community to identify other areas of significance in the development of the questionnaire.

The questionnaire consisted of 42 questions that took a longitudinal view of these graduates as they prepare to embark on the practice of their chosen profession. The questions were divided into three major sections: background information, postgraduate training, and professional affiliations. Broad question topics included demographic information; family history in medicine; reasons for choosing osteopathic medicine; the osteopathic medical college attended; if an AOA-approved internship, residency, or fellowship was undertaken; and finally, the type of residency and specialty training obtained by these graduates.

Respondents were asked about their perceptions concerning their ability to diagnose and treat structural problems and their confidence level in integrating OMT into clinical practice. Respondents were further asked about their memberships in, and contributions to, various local, state, national, and specialty osteopathic and allopathic medical organizations. The questionnaire included a series of Likert-type questions designed to measure respondents' identification with the profession. Further, respondents were asked if and how they may have been "turned off" the osteopathic medical profession. This was an open-ended question without any leading suggestion on answers. Respondents who answered in the affirmative were asked to provide detail regarding what factors influenced

their response. The questionnaire was tested in a pilot survey of a group of osteopathic interns and residents training at the hospitals in the Lansing, Mich area.

The self-administered questionnaires were then sent to all 1,513 graduates of the 1992 class whose names and addresses were obtained from the American Osteopathic Association (AOA) Physician Biographic Records office. Two mailings were sent. The first mailing included a reply card stating that each respondent had returned the survey in a separate envelope. This allowed for a second mailing of the questionnaire to those who did not return their cards while maintaining anonymity. A total of 684 completed questionnaires were returned. Thirteen of the 684 returned questionnaires arrived after the cut-off date for inclusion of responses for analysis, and another 10 were eliminated because respondents indicated a graduation year other than 1992. Six hundred and sixty-one of the returned questionnaires were usable for analysis. This represents 43.7% of all the 1992 graduates.

The Statistical Package for the Social Sciences (SPSS) was used in the analysis of the data, employing *t* tests and analyses of variance (ANOVAs) for descriptives and comparisons of means. The assumptions for these statistical procedures were verified for any statistics reported in this article. Three scales were developed for this research. The first (OSTIDENT) measures the professional identity of respondents (*Table 1*). Six Likert-type questions were combined to analyze respondents' attitudes about themselves as osteopathic physicians and the profession as a whole. The second (OMTSCORE) is a measure of respondents' perception of their preparedness to diagnose and treat structural problems and their confidence levels in integrating OMT in clinical practice (*Table 2*). In addition, these respondents' use of OMT was compared with the use of OMT by different groups of osteopathic physicians as reported by other researchers. The third scale (OSTAFIL) measures respondents' affiliation with the profession through membership in four differ-

ent osteopathic medical organizations (the AOA, state, local, and specialty osteopathic medical associations). The respondents' membership rates were then compared with their membership rates in analogous allopathic medical associations.

Results

Demographic profile of respondents

Data from 661 completed questionnaires were used in the analysis of this study (Table 3).

Respondents who have been turned off the profession

Forty-five percent of the respondents indicated that they have been turned off the profession and gave more than 55 different reasons as to why. The most frequent reasons are listed in Table 4. Identification issues: limited understanding of osteopathic medicine outside the profession and poor DO self-identity account for 18.3% of the reasons given by these graduates for being turned off. Most written comments about these two components related to public promotion of the profession and DOs' image of themselves. Other major reasons included the AOA's policies regarding allopathic postgraduate training of DO graduates (11.7%); osteopathic medicine's professional and collegial leadership concerns (11.4%); and professional relationship problems between the allopathic and osteopathic physicians (11.3%). Less than 8% indicated concerns with postgraduate programs in osteopathic hospitals, and 3% called for more research to firmly support osteopathic concepts.

Not listed with the aforementioned major reasons, but of interest and significance to this study, were comments concerning the insufficient training in manipulative medicine received at various COMs, and the limited use of OMT by non-primary care osteopathic physicians in academic and hospital settings.

Osteopathic professional identity (OSTIDENT)

Table 5 outlines the differences between

Table 1 OSTIDENT*† Items and Reliability	
Question No.	Items
31	I think of myself as an osteopathic physician, not simply a physician.
37	I am a mentor to individuals interested in osteopathic medicine.
38	I strongly recommend osteopathic medical training to students interested in a medical career.
39	The future of the osteopathic medical profession is bright.
40	I plan to pursue a leadership role in my state or national osteopathic medical association.
41	If I had to do it over, I'd still become a DO.

* OSTIDENT = osteopathic identity.
† Reliability testing found acceptable item-to-total correlations (mean = .60), interitem correlations (.45) and α level (.82). Further, deleting any single item will not significantly improve the α level.

Table 2 OMTSORE*† items and reliability	
Question No.	Items
32	I was well prepared in my training to diagnose structural problems.
33	I was well prepared in my training to treat structural problems.
34	I was well prepared in my training to integrate OMT into my practice.

* OMTSCORE = Osteopathic manipulative treatment score.
† Reliability testing found acceptable item-to-total correlations (mean = .75), interim correlations (.69) and α level (.86). Further, deleting any single item will not significantly improve the α level.

some of these respondents' groups. No significant statistical differences were found using gender, ethnicity, marital status, or between those who have DO relatives and those who do not. Respondents who use less OMT in their practices and those turned off the profession had significantly lower professional identity scores. Those who became DOs because they could not get into an allopathic med-

ical school also scored significantly lower on the identity scale than those who desired to become DOs. The respondents who completed either an AOA-approved residency or fellowship scored significantly higher on the professional identity scores. As expected, those with memberships in state or the national osteopathic medical association (AOA) had significantly higher professional identity scores.

Table 3
Demographic Characteristics of Respondents (N=661)

Characteristic	%*†
■ Age, y	
☐ 25 to 29	2.4
☐ 30 to 34	61.7
☐ 35 to 39	20.7
☐ 40 to 44	11.9
☐ 45 to 50	2.0
☐ ≥51	1.4
■ Gender	
☐ Male	62.0
☐ Female	38.0
■ Race/ethnicity	
☐ Caucasian	83.5
☐ Black/African American	3.8
☐ Hispanic	3.7
☐ Asian/Pacific American	7.0
☐ Native American	0.5
☐ Other	1.5
■ Osteopathic medical school	
☐ CCOM (Chicago)	5.2
☐ KCOM (Missouri)	8.8
☐ MSU/COM (Michigan)	9.0
☐ NSU-COM (Florida)	5.8
☐ NYCOM (New York)	8.4
☐ OSUCOM (Oklahoma)	4.1
☐ OUCOM (Ohio)	7.2
☐ PCOM (Pennsylvania)	12.0
☐ UHS/COM (Missouri)	7.0
☐ UMDNJ/SOM (New Jersey)	2.4
☐ UNE/COM (New England)	4.3
☐ UNTHSCFW/TCOM (Texas)	5.0
☐ UOMHS/COMS (Iowa)	10.7
☐ WVSOM (West Virginia)	3.2
☐ Western U COMP (California)	6.9

* Valid percent.
† May be different from 100% as result of rounding errors.

Professional affiliations (OSTAFFIL)

Results of participation in osteopathic medical organizations (*Table 6*) correspond with the aforementioned professional identity results. Those who use less OMT in their practice and those who became DOs because they did not

get into an allopathic medical school had memberships in fewer osteopathic medical organizations. On the contrary, those who have at least one DO relative, those who plan to pursue a leadership role in the osteopathic medical profession, and those who completed an AOA-approved residency or fellowship were members

of more osteopathic medical organizations. It should be noted that there was no significant difference in the number of osteopathic medical organization memberships between those who indicated they were turned off the profession and those who did not.

Preparedness to diagnose, treat, and integrate OMT (OMTSCORE)

On the measure of OMT preparedness (*Table 7*), those who use OMT on less than 5% of their patients considered themselves less prepared to diagnose, treat, and integrate OMT into their clinical practice. Turned-off respondents and those who became DOs because they could not get into an allopathic medical school also indicated less confidence in the use of OMT on their patients. No statistical differences were found between those who have at least one relative who is a DO and those who did not or between those who completed an AOA-approved residency and those who did not. However, those who completed an AOA-approved fellowship regarded themselves as well prepared to diagnose, treat, and integrate OMT in their practices. Those who are members of their state osteopathic medical organizations and those who are members of the AOA also had higher OMT-preparedness scores.

Amount of OMT use

Table 8 shows a comparison of OMT use by different categories of respondents. There was no statistical difference in OMT use between those who claim to be turned off the osteopathic medical profession and those who are not. However, those who became DOs because they could not get into allopathic medical school use less OMT. One surprising finding in the study was that respondents who have no relatives who are DOs use more OMT than those who have at least one relative who is a DO. Respondents who completed AOA-approved residencies and fellowships also used more OMT on their patients than residents and fellows in non-AOA-approved programs. Finally, those who are members of their state osteopathic medical association or

Table 3, continued
Demographic Characteristics of Respondents (N=661)

Characteristic	%*†
■ Highest degree achieved prior to medical school	
☐ No Bachelor's	0.5
☐ Bachelor's	86.4
☐ Masters	11.1
☐ Professional	0.9
☐ PhD	1.1
■ Applied to both osteopathic and allopathic medical schools	
☐ Yes	60.4
☐ No	39.6
■ Admitted to both osteopathic and allopathic medical schools	
☐ Yes	20.7
☐ No	39.7
☐ Not relevant	39.6
■ Parents are DOs	
☐ Neither	95.8
☐ One	4.2
☐ Both	0.0
■ Parents are MDs	
☐ Neither	93.6
☐ One	5.7
☐ Both	0.6

* Valid percent.

† May be different from 100% as result of rounding errors.

the AOA as well as those who aspire for leadership roles within the osteopathic medical profession use more OMT on their patients than their counterparts.

Comparison of OMT use

Table 9 shows the differences in OMT use between the 1992 graduates in this study, a national sample of osteopathic family practitioners¹², and a small sample (two respondents from each state) of randomly selected osteopathic physicians.¹³ Findings of our study demonstrate a steady decline in the use of OMT when compared with similar studies by other researchers. Nearly twice as many

respondents in our study report using OMT on less than 5% of their patients as did respondents in the studies by Johnson and colleagues¹² and Fry.¹³ During his July 19, 1960 Andrew Taylor Still Memorial Lecture, Thompson¹⁴ referred to a study conducted on the 1948 through 1953 graduates of osteopathic medical colleges who were then in full-time private practices. More than 40% of more than 1000 respondents used OMT on more than 50% of their patients and more than 57% rated OMT an important part of their treatment of organic diseases. When compared with the 1960¹⁴ report of that generation of osteopathic physicians, the 1992 gradu-

ates fared poorly in the use of OMT on their patients. In various comments, respondents from the class of 1992 complained about the lack of advanced training, poor role modeling by clinical instructors, and minimal encouragement or expectation to use OMT after their second year in didactic academic settings and postgraduate training.

Discussion

The growth of osteopathic medicine is nothing short of phenomenal since its humble and difficult beginning in the late 1800s. The misconception of "being on the fringes of real medicine," which characterized "osteopathy" in its infancy, still lingers in a few places. Osteopathic physicians can be found in leadership positions in government, the military service, in allopathic medical training institutions, in major health management organizations, and in almost every sector of the healthcare industry. Today, osteopathic physicians are fully licensable in all 50 states and in several countries around the world.¹⁵ Osteopathic academic institutions are flourishing, new schools are opening, and the number of applicants for admissions into osteopathic medical colleges is on the rise, resulting in increased student enrollment and graduates.⁶

With all these developments, there is reason for hope in the future of osteopathic medicine. Yet, the results of this study present some challenges for the profession. Among the study's key findings, those discussed in this article merit special attention as they have a clear impact on the decisions of the respondents to affiliate and identify with the profession.

This research supports the suppositions that the osteopathic medical profession faces perplexing internal and external problems. Changes in the healthcare industry and mergers of several osteopathic hospitals with allopathic hospitals have decreased the number of positions in osteopathic postgraduate training programs. In addition, the increasingly open acceptance of osteopathic medical college graduates into the Accreditation Council for Graduate Med-

ical Education (ACGME) programs attracts many osteopathic medical graduates toward allopathic residencies. This internal crisis is evidenced in the research findings where 12.9% of the graduates obtained their internship training in non-AOA-approved programs and 46.7% chose residencies in allopathic postgraduate programs.

Also, a great majority of the 1992 graduates' subspecialty training (75%) was completed in allopathic postgraduate programs. These numbers are disconcerting because on a key measure of osteopathic identity (OSTIDENT), those who completed non-AOA-approved residencies and fellowships were less likely to identify with the profession. They reported less confidence in diagnosing and treating structural problems and integrating osteopathic methods into clinical practice (OMTSORE) and were less likely to use OMT in their practices. On the measure of affiliation (OSTAFFIL), these same respondents were less likely to support osteopathic medical organizations with their time or money. The training of graduates of COMs in non-AOA-approved programs separates them from the continued influence of the philosophy and practice of their basic medical training. Although the creation of new COMs is a healthy sign of growth, unless commensurate residency slots are created within the osteopathic postgraduate training institutions (OPTIs), the internal crisis will only get worse.

In 1987, Eckberg¹⁶ defined "back door students" as those who applied to but were rejected by allopathic medical schools, knew little about osteopathic medicine, but who nevertheless desired to become physicians. Previous studies found that in 1967 only 5% of osteopathic medical students fit this category¹⁷, but it had risen to 15% in 1970.¹⁸ In our study of the COM graduating class of 1992, 39.7% of the respondents indicated that they applied to but were unable to gain admission into allopathic medical schools. This increase in the percentage of back door students is disturbing because the findings of our study show that they were less likely to identify with or to support the osteopathic

Table 4 Reasons Respondents Are "Turned Off" the Osteopathic Medical Profession	
Reason	Respondents, %
☐ Poor DO identity outside the profession	15.0
☐ Discrimination against allopathic and military residencies and internships by the American Osteopathic Association (AOA)	11.7
☐ Poor postgraduate training programs	7.7
☐ Too much separatism from allopathic medicine	7.3
☐ Osteopathic medical college leadership	6.7
☐ Poor AOA leadership	4.7
☐ Allopathic medicine's prejudice against DOs	4.0
☐ Poor DO self-identity	3.3
☐ Osteopathic manipulative treatment must be more scientifically researched	3.0

medical profession with time or financial contributions. They were also less likely to feel prepared to diagnose, treat structural problems, and to integrate OMT into clinical practice. Moreover, they were less likely to use OMT on patients. These graduates also responded more often that they were turned off the osteopathic medical profession.

Current allopathic medicine's policies, which include wider accessibility of ACGME residency training programs to DO graduates, subsequent opportunities for these graduates to sit for specialty and subspecialty board examinations, and freedom to practice within allopathic medicine's systems, continue to make matriculation in osteopathic medical schools very attractive to individuals with less commitment and dedication to the osteopathic medical profession. If the proportion of back door students remains unchecked, the osteopathic medical profession will continue to lose its distinct image and philosophy of practice.

From its beginning, the osteopathic medical profession has offered something distinctive to the American public in healthcare services. It emphasizes primary care and preventive medicine.

Osteopathic philosophy fosters the understanding of the interrelationship between structure and function of the body's components. Osteopathic physicians regard the neuromusculoskeletal system as the fundamental framework of the body element, and they also recognize the significance of various factors in health and disease. The real practice of osteopathic medicine lies within the broad continuum of medicine. It embodies a philosophic approach to patient care that incorporates a caring and compassionate attitude with the advancing science and technology of medicine. Osteopathic physicians continue to maintain the tradition of providing healthcare services to the underserved populations of the nation in greater proportions than their allopathic medical colleagues.⁶

Despite these characteristics, Gevitz,⁵ a medical historian, has suggested that the profession and its practitioners suffer from "osteopathic invisibility syndrome." He uses this term to signify insufficient public knowledge of osteopathic medicine's services and the professions' meager efforts in promoting and advancing its distinctiveness. This public relations problem may be construed as the exter-

Table 5
Measure of Osteopathic Identity*

Category	Mean†	t Value‡	P value
☐ Respondents who use OMT less than 5% of the time compared with those who use it more	§	11.08	<.001
☐ Respondents who claim to have been "turned off" the osteopathic medical profession	3.65	5.78	<.001
☐ Respondents who planned on becoming an osteopathic physician	3.97		
☐ Respondents who became a DO because they "could <i>not</i> get into allopathic medical school"	3.46	5.49	<.001
☐ Respondents who always planned on becoming an osteopathic physician	3.91		
☐ Respondents who are <i>not</i> planning to pursue an osteopathic leadership role	3.69	11.32	<.001
☐ Respondents who are planning to pursue an osteopathic leadership role	4.31		
☐ Respondents who have <i>not</i> completed an AOA-approved residency	3.73	2.54	.001
☐ Respondents who have completed an AOA-approved residency	3.88		
☐ Respondents who have <i>not</i> completed an AOA-approved fellowship	3.61	2.51	.013
☐ Respondents who have completed an AOA-approved fellowship	3.98		
☐ Respondents who are <i>not</i> members of state osteopathic medical association	3.68	5.11	<.001
☐ Respondents who are members of state osteopathic medical association	3.96		
☐ Respondents who are <i>not</i> members of the AOA	3.45	5.58	<.001
☐ Respondents who are members of the AOA	3.91		

* See methodology section for the items in this scale (OSTIDENT).

† Means for each item on osteopathic identity scale: 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree.

‡ The t-tests for ANOVAs represent a priori contrasts.

§ Lower mean for those who use it less than 5%.

Table 6
Number of Osteopathic Medical Organizations of Which the Respondent is a Member*

Category	Meanst	t Value‡	P value
☐ Respondents who use OMT less than 5% of the time compared with those who use it more	§	7.26	<.001
☐ Respondents who became a DO because they" could <i>not</i> get into allopathic medical school"	1.87	2.06	.04
☐ Respondents who always planned on becoming an osteopathic physician	2.14		
☐ Respondents who have no relatives who are DOs	2.04	2.16	.031
☐ Respondents who have at least one relative who is a DO	2.33		
☐ Respondents who are <i>not</i> planning to pursue an osteopathic leadership role	1.94	5.81	<.001
☐ Respondents who are planning to pursue osteopathic leadership role	2.66		
☐ Respondents who did <i>not</i> complete an AOA-approved residency	1.39	10.74	<.001
☐ Respondents who have completed an AOA-approved residency	2.47		
☐ Respondents who did <i>not</i> complete an AOA-approved fellowship	1.72	3.69	<.001
☐ Respondents who have completed an AOA-approved fellowship	2.64		

* See methodology section for the items in this scale (OSTAFIL).
† Means are on a scale from no osteopathic organizations to 4 (the AOA, state, local, and specialty osteopathic medical organizations).
‡ The t-tests for ANOVAs represent a priori contrasts.
§ Fewer osteopathic medical organizations for those who use it less than 5%.

nal crisis facing the profession. Many respondents in our study noted that limited public awareness, understanding, and appreciation for osteopathic medicine were negative factors in their identification with the profession. Of those who

responded as being turned off the osteopathic medical profession, 15% were concerned about the limited public knowledge of all that osteopathic medicine has to offer. For example, a respondent from the New York College

of Osteopathic Medicine wrote, "it is difficult to understand why there are so many osteopathic physicians in the United States, and still so few who are familiar with the profession." Many echoed similar sentiments and frustrations about

Table 7
Measure of Osteopathic Manipulative Treatment (OMT) Preparedness*

Category	Mean [†]	t Value [‡]	P value
☐ Respondents who use OMT less than 5% of the time compared with those who use it more	§	9.20	<.001
☐ Respondents who claim to have been "turned off" the osteopathic medical profession	3.70	2.47	.014
☐ Respondents who do <i>not</i> claim to have been "turned off" the osteopathic medical profession	3.88		
☐ Respondents who became a DO because they "could <i>not</i> get into allopathic school"	3.43	4.66	<.001
☐ Respondents who always planned on becoming an osteopathic physician	3.88		
☐ Respondents who are <i>not</i> planning to pursue an osteopathic leadership role	3.73	3.82	<.001
☐ Respondents who are planning to pursue an osteopathic leadership role	4.05		
☐ Respondents who have <i>not</i> completed an AOA-approved fellowship	3.67	2.01	.047
☐ Respondents who have completed an AOA-approved fellowship	4.03		
☐ Respondents who are <i>not</i> members of state osteopathic medical association	3.70	2.72	.007
☐ Respondents who are members of state osteopathic medical association	3.89		
☐ Respondents who are <i>not</i> members of the AOA	3.20	3.20	.001
☐ Respondents who are members of the AOA	3.57		

* See methodology section for the items in this scale (OMTSscale).

† 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree.

‡ The t-tests for ANOVAs represent a priori contrasts.

§ Lower mean for those who use it less than 5%.

Table 8
Amount of Osteopathic Manipulative Treatment (OMT) Use

Category	Mean*	t Value	P value
☐ Respondents who became a DO because they "could <i>not</i> get into allopathic medical school"	1.16	-8.46	<.001
☐ Respondents who planned on becoming an osteopathic physician	1.66		
☐ Respondents who have at least one relative who is a DO	1.39	2.54	.012
☐ Respondents who have no DO relatives	1.60		
☐ Respondents who are <i>not</i> planning to pursue an osteopathic leadership role	1.50	3.34	.001
☐ Respondents who are planning to pursue an osteopathic leadership role	1.84		
☐ Respondents who have <i>not</i> completed an AOA-approved residency	1.40	3.06	.002
☐ Respondents who have completed an AOA-approved residency	1.60		
☐ Respondents who have <i>not</i> completed an AOA-approved fellowship	1.25	3.90	<.001
☐ Respondents who have completed an AOA-approved fellowship	2.27		
☐ Respondents who are <i>not</i> members of state osteopathic medical association	1.36	5.75	<.001
☐ Respondents who are members of state osteopathic medical association	1.75		
☐ Respondents who are <i>not</i> members of the AOA	1.28	5.14	<.001
☐ Respondents who are members of the AOA	1.63		

* 1 = less than 5%, 2 = 5% to 25%, 3 = 26% to 50%, 4 = 51% to 75%, 5 = 76% to 100%.

having to explain what an osteopathic physician is or does (or both), and how a DO differs from an MD.

A graduate of the University of Health Sciences College of Osteopathic Medicine stated, "ninety-nine percent of patients and population don't know what a DO is. They think DOs have less training than MDs. Also, they do not know what the title DO is."

A final note on the external crisis relates to the issue of the profession's effort to raise public awareness of its distinctiveness. Several respondents wrote about this particular aspect. "Starting in medical school," a graduate of Chicago College of Osteopathic Medicine wrote, "I noticed a paucity of public relations material in a profession that desperately needs to educate potential patients." A Kirksville College of Osteopathic Medicine graduate wrote, "I wish I didn't have to explain to everyone I came into contact with what an osteopathic physician is. Everyone knows what a chiropractor is!" Another respondent stated his concern in the following way; "I don't think the osteopathic medical profession makes enough effort to educate the public—we constantly have to explain what a DO is." Notwithstanding these concerns, most of the respondents indicated optimism about the profession and a great majority noted that they consider themselves primarily osteopathic physicians. A Michigan State University College of Osteopathic Medicine graduate proudly wrote: "I am so glad I chose the osteopathic route! I feel so strongly about the (w)holistic approach to osteopathy. I use manipulation in my daily practices."

Policy implications

Osteopathic medicine faces many challenges as healthcare markets continue to evolve. Identification and affiliation of its graduates and practitioners to the philosophic tenets and the organizational structure of the profession will indeed become essential for the next century. The problems of acceptance of osteopathic medicine as a legitimate medical field by the public and other physician groups, licensure of DOs in various states, appointment of osteopathic physi-

Table 9 Comparison of Osteopathic Manipulative Treatment (OMT) Use Between Respondents and All Osteopathic Physicians			
OMT used	Respondents, %		
	Aguwa and Liechty (N=661*)	Johnson et al ¹² (N=1055†)	Fry ¹³ (N=100‡)
<5%	60.4	32.1	29.0
5% to 25%	24.7	39.6	44.0
26% to 50%	8.0	12.7	12.0
51% to 75%	2.0	3.5	6.0
76% to 100%	2.1	2.7	8.0
No response	2.9	9.4	§

* Class of 1992.
† Osteopathic family physicians.
‡ Osteopathic physicians.
§ Note: Fry uses valid percentage (does not include "No response"). May be different from 100% because of rounding.

cians in government positions, and discrimination toward osteopathic physicians by third-party payers no longer exist.^{6,7,15,19,20} The findings of our study suggest that the 1992 graduates of the COMs continue to struggle with issues greater than professional identification and affiliation. It brings to light a more serious concern regarding their confidence in the use of and incorporation of OMT in their practice and in addition, the limited public knowledge and understanding of the osteopathic medicine's distinctiveness. In view of these concerns, we hope that the findings of our study will stimulate discussion and action that will aid in lessening both the internal and external crises.

Prominent osteopathic physicians²¹⁻²³ urge their osteopathic medical colleagues to contribute financial support to osteopathic physician colleges' quests to maintain high educational standards and to promote the progress of the profession. They also advocate unity of purpose in projecting public awareness of the profession and call for quality inclusion of osteopathic physicians in government agencies. We support this effort and offer the following policy recommendations.

Policy recommendations

Our recommendations, as follow, pertain to COMs, postgraduate training programs, the newly established OPTIs, and the AOA.

Colleges of osteopathic medicine

■ **Admissions**—The college admissions processes should be tailored to carefully screen applicants in order to select matriculants who possess interest, knowledge, and commitment to osteopathic medicine. This will ensure the admission of those who truly want to be osteopathic physicians and will encourage the graduation of physicians who are dedicated to the practice and progress of the osteopathic philosophy.

■ **Medical Education**—The curriculum of each COM must include required courses that highlight osteopathic medicine's history and heritage. The courses should encompass the profession's struggle for survival and its success in gaining nationwide and international acceptance. Osteopathic medical education should be such that regardless of students' preadmission ideas and perceptions, they will leave their institutions with an appreciation for their colleges and the profession as a whole.

In an attempt to determine whether training in osteopathic manipulative skills are required within the core curriculum, we requested course offerings from all the osteopathic medical schools. Of the eight that responded, only one had required rotations in osteopathic manipulative skills beyond the first 2 years of academic work. To ensure that graduates maintain confidence in their ability to diagnose and treat structural problems and are capable of integrating osteopathic principles into clinical practice, the colleges must provide a program of OMT that spans the length of the curriculum.

Residency training programs

Many programs that provide postgraduate medical training of osteopathic physicians have failed to advance osteopathic manipulative skills training. In spite of the fact that OMT does not represent the totality of osteopathic medicine, it is, nevertheless, a vital part of the original foundation on which the concepts of osteopathic philosophy and practice are based. Sadly, the use of OMT by osteopathic physicians continues in a downward spiral as evidenced by the results of these studies. This deficit is clearly evident in the written comments of study respondents. We therefore recommend that postgraduate training programs rekindle osteopathic principles and practice training in both the hospital and ambulatory care training sites. Skilled clinical instructors who serve as instructors and mentors in the use of osteopathic manipulative medicine (OMM) in all specialty areas of patient care should also be provided. This will emphasize and foster the importance of OMT to all graduates.

Osteopathic postgraduate training institutions

In 1995, the AOA Committee on Osteopathic Postgraduate Training recommended the establishment of a new concept for administering graduate medical education. The initiative, termed osteopathic postgraduate training institution (OPTI), is based on a consortia system designed to link all approved osteopathic postgraduate training programs and their subsidiaries with COMs. The goal

of each OPTI is to achieve collaboration among partners, composed of hospitals, ambulatory care training sites, and COMs in the postgraduate training of osteopathic physicians. These collaborative efforts will contribute didactic and academic expertise in curriculum development from medical school into practice settings. It is expected that the OPTI system will foster distinctive osteopathic healthcare. Additionally, the various OPTIs are to establish mechanisms for faculty development for the osteopathic medical profession. The AOA stipulated that all approved internship and residency programs must be located within an OPTI no later than June 1999. We believe that among other expectations, the OPTI partnerships can provide an avenue for bridging didactic and advanced clinical OMM training. The OPTI system should develop a standardized curriculum for OMM training in all specialties, establish a clearinghouse for OMM education, and encourage scientific inquiry regarding the use of osteopathic medicine in the clinical laboratory.

Professional organization

In 1946, John P. Wood, DO, then AOA president, in an address delivered before the general session of the AOA annual convention, encouraged every osteopathic physician to make a personal investment in the profession.

We inherited an advanced school of medical practice founded on certain revolutionary principles. Our predecessors fought long and hard, against great odds, to establish this independent school of the healing arts. They passed the torch to a succeeding generation, to bear aloft and keep bright the flame, that still other generations might add to the fund of accumulated knowledge and dispense it for the greater benefit of [hu]mankind.²⁴

The osteopathic medical profession continues to grow even in the presence of concerns regarding a perceived physician glut. New osteopathic medical colleges are opening in various states, and a large number of applicants seek entry into osteopathic medical colleges yearly. Student enrollments continue to grow, and

an increasing number of students become DOs annually.¹¹ Most practitioners of osteopathic medicine take pride in the discipline's comprehensive, humanistic, holistic, and primary care approach to patient care. The leaders of the profession today, however, must be prepared to respond to these disquieting internal and external demands, especially as indicated by these graduates who, along with their peers, will be the future of osteopathic medical practice and leadership.

Included in his invisibility piece, Gevitz⁵ proposed that every osteopathic physician contribute 2% of his or her gross earnings toward a public education effort to promote osteopathic medicine. It is his belief that this level of giving will assure sufficient funds to mount a national campaign of public relations to promote, project, and publicize osteopathic medicine's services and distinctiveness. Remarkably, a recent National Public Radio report revealed that the \$90 billion that Americans gave to charitable organizations in 1995, was equivalent to 2% of national gross income of that fiscal year. If DOs accept the "2% solution" recommendation, their generosity will pay dividends for their profession. In the Osteopathic Manifesto series, first published in 1981 and reprinted in the *JAOA* in 1998, Northup²⁵ made this poignant statement, "we must not allow our distinct image to fade and disappear. If we do...the government and the public will pose an uncomfortable question: Why two professions?"

Comment

The findings of our study suggest that as prejudice against the osteopathic medical profession and physicians continues in its downward spiral, more and more recent graduates of COMs may find it easier to become indistinguishable from MDs. That osteopathic medicine survives and continues to advance are indications of the dedication and tenacity of practitioners and admirers of osteopathic medicine who are determined to preserve the legacy of the founder. Although some osteopathic medical college graduates fail to embrace osteopathic philosophy in its totality, current medical chal-

lenges such as increasing prevalence of infectious diseases and the persistence of chronic and debilitating musculoskeletal illnesses seem to call for the type of philosophy and practice that osteopathic medicine offers. Contemporary popular trends toward preventive care, holistic medicine, and the resurgence of interest in alternative medicine create a fertile ground for osteopathic medicine to prosper.

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