Osteopathic medical education: The introduction of managed care principles into our undergraduate curriculum

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The authors review the strengths of traditional osteopathic medical education, identify the principles that managed care organizations have identified as being essential in preparing physicians to succeed in the current medical marketplace, and discuss the advantages of incorporating the best principles of managed care into osteopathic medical education. They present a strategy and outline proposed by the Department of Family Medicine at the Western University of Health Sciences College of Osteopathic Medicine of the Pacific for the integration of these principles into the undergraduate educational process.

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This is an extraordinary time to be involved in osteopathic medical education. We find ourselves in the midst of a rapidly changing medical marketplace. The surge of interest in reforming the national healthcare system has created a renewed interest in, and emphasis on, what has traditionally been the osteopathic medical profession's strength—primary care medicine. Along with this renewed focus on primary care and new interest in cost-conscious medicine comes a close scrutiny of medical education. Both the content and the process of medical education and clinical training are being re-examined. We, as osteopathic medical educators, are being challenged to reassess our educational processes to best continue our strong tradition of teaching well-prepared primary care physicians in the context of the evolving healthcare system. Osteopathic medical students need to be prepared to practice in the as-yet undefined medical environment of the 21st century. It is our responsibility as educators to identify and to pass on the knowledge, attitudes, and skills that our graduates will need to practice quality medicine, to function effectively, and to thrive (both professionally and personally) in the new healthcare arena.

The three key issues in healthcare reform are access, quality, and cost. A significant amount of time and energy is being spent establishing the scope of "universal access," how "quality medical care" will be defined and monitored, and what can be considered "an affordable cost." Throughout all the discussions, three fundamental issues have emerged:

1. Primary care medicine will be the foundation of the evolving healthcare system.
2. The management of our limited resources has become a reality, and
3. Healthcare reform cannot and will not happen without medical education reform.

The osteopathic medical profession and colleges of osteopathic medicine (COMs) have a strong tradition of practicing and teaching primary care medicine. The strengths of our profession form the basis of the quality, cost-conscious medical care that will be practiced in the future. These strengths include a humanistic, patient-centered approach to primary care medicine; health promotion and disease prevention; community-based medical practices; and ambulatory-based clinical education.

We have traditionally provided our students with the solid understanding of the basic sciences, the proficiency in medical technology, and the distinctiveness of osteopathic manipulative medicine necessary to practice the science of medicine. We have recently begun to reemphasize teaching the communication skills and clinical thought processes necessary to practice the art of medicine. We have produced both primary care and specialist physicians who are well-qualified to practice in the 20th century. However, it is no longer adequate to understand just the science and the art of medicine. Today, physicians must also understand the delivery of healthcare.

We need to recognize and to expand on the strengths of the osteopathic medical profession and its educational processes. We must maintain our focus on primary care. We need to renew our physicians’ proficiency in osteopathic manipulative medicine. At the same time, we need to progress. Specifically, we must do a better job of teaching our students how to develop an understanding of the cultural, economic, and political framework that has an impact on both health and illness in our communities, as well as how to work within that framework. Osteopathic medical graduates need to be able to work with, not just in, their communities to determine what “adequate” medical care is and how that care can best be delivered.

Prevalence of MCOs
Managed care organizations (MCOs) are emerging as the most prevalent and most successful model for the delivery of healthcare in the current marketplace. They are continuing to evolve as market forces drive the consolidation and integration of previously competing healthcare entities. It is not clear which of the current
models (HMO, IPA, PPO) will be the most successful in the future. However, it is clear that the government, industry, and other healthcare purchasers are demanding the quality assurance, provider accountability, and cost-effective medicine supposedly inherent to MCOs.

Throughout the United States, the MCOs are rapidly penetrating the healthcare market. In 1995, an estimated 71% of those persons who obtained health insurance from an employer were in some form of managed care. This figure is up from 63% in 1994 and 52% in 1993. Similarly, in 1994, 18.5% of Americans were enrolled in some form of prepaid MCO. In some states, penetration of prepaid managed care programs is even more impressive. For example, 36.4% of the California market is composed of prepaid managed care programs as is 33.6% of the Minnesota market. Enrollment in Medicaid and Medicare managed care programs is also growing quickly. These trends are expected to continue.

Leaders of the MCOs (physicians and administrators) profess to have established some well-defined general principles, such as provider accountability, cost-effective medicine, and continuous quality improvement, that help to distinguish the MCOs from other healthcare delivery systems. They also report that few medical school graduates (osteopathic or allopathic) are adequately prepared to deliver healthcare in the current managed care arena.

To assist osteopathic medical graduates in succeeding, we need to understand and to integrate the basic principles of managed care into our academic curricula. The same time, the principles we choose to integrate must be consistent with the philosophy of the osteopathic medical profession and not merely reflective of the latest fad in healthcare.

**Integrating managed care principles**

Western University of Health Sciences College of Osteopathic Medicine of the Pacific (WesternU COMP) is committed to forming strong partnerships with local MCOs. Through these partnerships, our undergraduate students will have earlier and more frequent opportunities to work with MCO physicians who are experienced in delivering healthcare to various patient populations and who are comfortable with their role as patient advocates. These role models work efficiently with other healthcare providers and know how to effectively access and manage resources.

In turn, the MCOs will benefit from this partnership as our graduates will be well-educated primary care physicians who are adequately prepared to work in the managed care arena. These graduates will have the knowledge, attitudes, and skills necessary to become leaders in the dynamic healthcare system of the 21st century.

To make these partnerships strong and successful, several fundamental challenges must be met. We need to modify the solid base of knowledge, attitudes, and skills currently provided by our traditional curriculum to help our students to be comfortable with and proficient in the basic principles of managed care. The well-defined principles of MCOs can be incorporated into the undergraduate curriculum with the following concepts.

**Change**

Our graduates need to be comfortable with the process of change, namely, the ability and willingness to improve. They will be challenged throughout their careers with new knowledge, new technologies, and new strategies for delivering healthcare and managing resources. They must be prepared to evaluate the merits of each proposed change and to incorporate the best into their practice of medicine. The educational process should provide opportunities for continuous quality improvement. This enhancement entails developing strategies for evaluating, reacting to, and effecting change. Changes in all domains (knowledge, attitudes, and skills) must be viewed as opportunities for improvement instead of barriers to success.

**Lifelong learning**

"The explosion of knowledge in the medical sciences effectively precludes the detailed memorization of facts for later recall." All the healthcare professions are "open book" professions. Success is based on the practitioner's ongoing ability to make use of the available resources. This ability encompasses accessing the information already known and stored in medical books and computers; possessing the willingness to learn from the collective experience of others (colleagues, allied health professionals, and patients); making the commitment to developing a system of self-directed lifelong learning and problem-solving skills; and having the ability to integrate new knowledge into existing knowledge bases.

**Team skills**

Quality medicine that is both cost-effective and time-efficient will be practiced in teams. Our graduates need to be able to cooperate, to participate, to negotiate, and to function effectively on provider teams and in committees. They will be expected to work with other healthcare professionals, administrators, members of the community, patients, and their families to deliver appropriate quality medical care. To succeed, they will need team-building skills, which encompass communication, leadership, and management abilities.

**Management skills**

Osteopathic medical graduates will need to work effectively with limited resources. They must be able to make judicious use of diagnostic tests and therapeutic procedures. They should develop a level of comfort working with probabilities instead of possibilities, with uncertainty about precise diagnoses, and with non-intervention as an acceptable strategy in patient management. They must also understand the roles and competencies of each member of the healthcare team. With this understanding, then, they can efficiently distribute the responsibilities to all team members. Their own time and energy (professional and personal) must be managed effectively.

**Timing is key**

Unfortunately, the rapidly changing medical marketplace is outpacing the capabilities of many standard curriculum com-
mittees. If we continue to follow the traditional timetable of curriculum change, we risk producing well-qualified 20th-century physicians who are ill-prepared to practice effectively in the 21st century medical environment. This scenario not only is unacceptable for the osteopathic medical profession, but it is clearly unfair to our students. We cannot delay integrating important principles into osteopathic medical undergraduate education while we, as faculty, struggle to understand and become comfortable with the evolving healthcare system.

The process of medical education needs to become more flexible. At the same time, we must make sure that the changes we effect are based on principles consistent with the osteopathic medical profession’s philosophy. The changes at hand represent an opportunity for osteopathic medical educators to stop taking a reactionary and defensive position and to begin to adopt a proactive stance by effecting change in undergraduate and postgraduate medical education.

Other articles have addressed the possibilities and practicalities of partnerships between MCOs and osteopathic postgraduate training programs. If our students are first given the opportunity to form these partnerships after graduation, they will have already established patterns of behavior and cognitive processes that will be difficult to change. We must begin to develop the 21st-century physician the very first day of osteopathic medical school.

Early integration of these basic principles and new skills acquired through contact with experienced role models and pertinent didactic materials is essential. Our system for teaching the delivery of quality healthcare should follow the same patterns that have been successful in teaching the science and the art of practicing quality medicine: begin with basics concepts and progress to specific skills. The challenge is to identify the things we can and should teach and then incorporate them into the curriculum when most appropriate. Just as students will need to become comfortable with change, so too will we administrators and faculty need time to acclimate to it.

Proposed pilot program

With the assistance of external funding, the Department of Family Medicine at WesternU COMP proposed pilot program works with MCOs to create an appropriate undergraduate curriculum. This curriculum links the campus, clinics, and affiliated community hospital programs. The proposal provides for the development of a special track. In the pilot group, 20 students will participate in a modified 4-year curriculum. The modifications address three major foci that are not well represented in our current curriculum:

1. The “culture” of osteopathic primary care medicine. Our students should learn what it means (professionally and personally) to be an osteopathic primary care physician. They need to understand the profession’s past, present, future, and its “parallel and distinctive” status. They need to be exposed to the roles, responsibilities, and opportunities found within the profession, whether it be in clinical practice, teaching, research, or medical administration. They should be familiar with the challenges, rewards, coping skills, time management techniques, and approaches to healthy living that will enable them to succeed professionally and personally.

2. Community-centered, culturally competent primary care. Our graduates will need to work with, not just in, their communities. They will need to think in terms of delivering healthcare to a population, not just to individual patients. They will need to be comfortable with outcome measurements in primary care, specifically what they are and how to use them.

3. Healthcare policy. Osteopathic medical students should know the history and evolution of healthcare in America. They need to understand the advantages and disadvantages of the healthcare systems currently being used or proposed in different states as well as in various countries. They need to be familiar with some of the principles of managed care—value-based contracting, provider accountability, continuous quality improvement, and cost-effective medicine. Future DOs need to understand how to analyze emerging policy and the process by which they can make an impact on healthcare policies.

This proposed 4-year Family Medicine/Managed Care track includes:

- The establishment of a nine-member advisory committee for the project. The project staff and project advisory committee will work together to develop and to implement a dynamic curriculum that can change in concert with our evolving healthcare system, providing our students with a solid understanding of the managed care principles that are consistent with the philosophy of the osteopathic medical profession. Committee members will include community leaders, MCO physician administrators, faculty from the Department of Family Medicine, and WesternU COMP students.

- The development of a 4-year elective curriculum in Family Medicine/Managed Care that will consist of:
  - A preclinical mentorship experience. Osteopathic family physicians with managed care expertise will serve as role models for freshmen and sophomore students. The students will benefit from hands-on learning experiences while observing and participating with their mentors. The students will meet their mentors during the first week of school and will work with them in longitudinal clinical care experiences throughout their first and second years.
  - A preclinical summer family medicine preceptorship. This summer educational experience will occur between the first and second years. It will act as an academic bridge by allowing students to be part of a medical team and to practice the communication, history taking, and physical examination skills that were taught in their Introduction to Clinical Medicine (ICM) course. These community-based primary care clinical experiences will preferably take place in rural or urban underserved areas. Whenever possible, each student will be matched with an osteopathic family practice preceptor or teaching site that is meaningful to the student. It is hoped that this experience will influence students to choose a family medicine career. Preference will be
given to preceptors and teaching sites that are affiliated with MCOs.

- A journal club seminar series during the preclinical years. This series will introduce students to the medical issues and clinical research related to osteopathic family practice medicine, managed care, clinical guidelines, total quality management, health policy, and community-centered/culturally competent primary care.

- A coordinated series of third- and fourth-year family medicine clerkships in managed care settings. We will initiate four special track clerkships, each 28-days long, in MCOs with family medicine preceptors to expose students to a variety of managed care settings and populations with special needs.

- Twenty students per year will participate in this curriculum track. Students will be selected from the group of matriculating first-year students who submit an application to volunteer to participate. Selection criteria and process will be determined by the project advisory committee and the project faculty.

- It is hoped that this track will serve as a model for the undergraduate medical school curriculum to enhance student understanding of managed care, both at WesternU COMP and at other osteopathic and allopathic medical schools throughout the United States.

**Comment**

Quality medical education—teaching the science, the art, and the delivery of quality healthcare—is an evolving process. As osteopathic medical educators, our challenge is to adopt a proactive stance and be an integral part of the solutions. We have not only the opportunity, but also the responsibility, to prepare osteopathic medical graduates—and thus the osteopathic profession—for the future. Knowing that we can make a difference in our communities in our roles as physicians makes for an exciting, challenging time to be involved in osteopathic medical education.

**References**

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