

EDITORIAL

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From the Editor: Aspects of Complexity in Osteopathic Medicine

Man's illnesses are the products of human life, and are derivatives of his nature as a total person. The study of human health and disease is totally unrealistic apart from this principle, for man is more than a collection of organs and tissues.

I.M. Korr, PhD¹

People are complex systems from many perspectives: physiologically, anatomically, emotionally, and psychologically. Therefore, the practice of medicine is extremely complex and this affects every aspect of a clinical encounter. To take a very simple example, the same advice given to the same patient by two different physicians may be received very differently depending on the interpersonal connection that was established. Another cause can be heuristic biases, as discussed by Jerome Groopman, MD.² The reason for a problem may not be clear for a while and in the meantime, the physician and patient collaborate to work through possibilities and try treatments as well as they can. Another example is logistical complexity: in a letter to the editor, Katrine Bengaard, DO, writes about her experience of this in the practice of osteopathic medicine in the Arctic.

In a clinical setting, we ask questions about the past, do a physical examination to assess the present, and use this information to influence and predict (with some cautious hedging) the future. However, this presumes that a diagnosis is stable throughout time, which it often isn't: this is one type of complexity in clinical practice.

I will illustrate this with a case from my NMM/OMM Plus One year: my patient was a physician who was coming in for an acute back strain after moving boxes the previous weekend. Dutifully, I asked a full review of systems—my patient good-humoredly responded that he had no fevers, coughing, abdominal pain, diarrhea, nausea, vomiting, radiating pain, numbness, tingling, or any other symptom except for localized low back pain.

I also did a thorough physical exam, which included an abdominal exam that elicited no localized pain or guarding.

“It seems structural,” I remarked, and he nodded with a smile. After I treated his lumbar rotation, sacral torsion, and pelvis inflare, he declared himself much better and walked out without any problems. That weekend, he went out of state for a medical conference and started to have right lower quadrant abdominal pain and a fever on the plane. When he landed, he went straight to the emergency room, was found to have acute appendicitis, and had immediate surgery.

When I found out about this the next week, I went back through my note and thought process and realized that there was no earthly way that I could have reasonably come up with an appendicitis diagnosis. He had a reasonable cause for mechanical low back pain from moving boxes and his review of symptoms and physical exam were completely benign. He did have structural findings that correlated with his pain location; both the findings and symptoms improved after OMM. Likely, in addition to the biomechanical strains, he had a retrocecal appendix and was having back pain instead of the usual anterior symptoms; if it was walled off, he would also not have any of the usual systemic symptoms. Perhaps he had a chronic appendicitis but because it was walled off, there was no acute inflammatory reaction. In this case, the OMM treatment could have normalized his compensatory mechanisms so the body was able to mount a full inflammatory response and the true diagnosis became apparent.³ So although the original diagnosis was not



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wrong, it was not complete.

This was one of the first times I was virtually certain that a patient had one diagnosis and it was only through time and the progression of the true diagnosis that it became clear. In addition to being humbled, I also experienced the dynamic process of medicine. What seems obvious at one point in time can be discovered to be completely wrong at another point, with a maturation of the situation.

Murray Berkowitz, DO, FAAO, presents another case report with a similar theme in this issue: in his patient's case, the cause of back pain was also visceral but this diagnosis was not apparent initially.

Complexity can also be seen in another way in an OMM visit. We are accustomed to learn OMM as a linear process in the first two years of medical school—if someone has a given osteopathic diagnosis, you can do a technique in such a way to address it. There are various diagnosis and treatment protocols for a variety of clinical problems or osteopathic findings. But these are still linear—for such problem, use this set of treatments—and the scope of the results are therefore limited. Early osteopaths used to call this kind of treatment “engine wiping” because it might clear up some of the dysfunctions but wouldn't address the underlying problems—it would wipe up the oil on the engine but not address the leaks. Engine wiping is a stage in the process of development in osteopathy and is very valuable to develop palpatory skills and proficiency in technique application, but it is not the full expression of practice.

How do you work with a patient's patterns which are attempting to compensate for structural, physiological, and/or emotional dysfunctions? Start with the basics: a detailed history and an evaluation of the patient's present state with a physical exam. Consider the range of possibilities that could be causing this problem. Address what you can in this present visit, whether it is through labs, imaging, OMM, medications, or referrals.

From the OMM perspective, you can try to address somatic dysfunctions or clinical problems in a linear manner or you can try to address it in a way that honors the patient's complex presentation. In this issue, Yvonne Yang, DO, describes a unique study that analyzes multiple quality of life measures after a treatment that is structured around the Area of Greatest Restriction screening. This screening process is one way to work with a particular patient's set

of neuromusculoskeletal findings at a moment in time in order to move through compensatory patterns in an efficient manner and re-establish the body's homeostasis (4). This study is an example of the concept that a thorough OMM treatment does not mean treating every region of the body thoroughly. Perhaps it begins to demonstrate that a thorough OMM treatment does not only affect the body, but also the mind and spirit, as is postulated in the Four Tenets—even when only using technique approaches that are theoretically only affecting the biomechanical paradigm.

Unfortunately, the complexity in clinical medicine in general is not emphasized very much in the first two years of medical school, in any subject. Most tests are structured in multiple choice questions, which continues the impression that there is often an obvious “right” answer in a given scenario. This implicit bias of certainty begins to be challenged in the last two years of medical school and residency training, at least for clinical medicine. However, because most osteopathic students and residents do not use OMM in their training after the first two years in medical school, they do not get the opportunity to appreciate how OMM can be used in clinically varied situations. This can include a variety of complaints in a number of chronic medical situations and in settings that range from outpatient clinics to newborn nurseries to inpatient and intensive care units. It can be successfully applied as a primary treatment or an adjunctive treatment, depending on the cause of the complaint. And osteopathic principles offer a significantly different paradigm with which to view patients who don't fit standard diagnoses and treatments. In the case report by Brianne Wehner, DO, and Ritu Calla, OMS IV, they discuss successful application of OMM to help support a patient with severe fibrosis and facial pain after squamous cell cancer treatment. They include a discussion of the application of the Five Models of the osteopathic approach that is instructive about considering how OMM fits into supportive care in this patient.

The use of OMM can contribute to the improvement of the clinical outcome and the style of interpersonal communication and touch may add to the amorphous and poorly defined but clearly felt impact of “healing.” In the quote beginning this article, Dr Korr makes a seemingly obvious observation about human illnesses being inseparable from human nature, but this perspective is often neglected in medicine. It is not an intellectual exercise to recognize that the patient is more than a conglomeration

of symptoms and medical history but a whole person with interests, hopes, loves, and fears. This recognition can make a concrete difference in the patient encounter. I will often start by asking a question about something that the patient is wearing, whether it is a pendant, slogan on a shirt, or pattern on socks. This effectively disarms the patient by asking an unexpected question, offers the opportunity for us to learn about each other on a personal level, and allows a brief respite from the work-day for me.

Although the clinical practice of medicine is complex, it doesn't mean that it is impossible. In the most complex situations, starting with the basics is always helpful. Patient encounters can give us an opportunity to connect with wonder and uncertainty, looking for the unexpected emergent properties that can occur when interacting with a complex system. In the cover illustration, Tanner Roberts, OMS IV presents an image of complexity, wonder, and uncertainty using the medium of watercolor, which is difficult to control. Student Doctor Roberts' painting is a unique expression of the beauty that can occur when not trying to strictly "color between the lines." In OMM, this could be as simple as using the navicular

bone to adjust the sacroiliac joint through knowledge of anatomy and the principles of tensegrity, or as complex as helping a patient navigate through the psychological and physiological impacts of trauma. The second tenet of osteopathic medicine is that the body has self-healing and self-regulating characteristics. Part of what we try to do as osteopathic physicians is to re-activate this capacity for resilience in anatomic, physiological, psychological, and emotional domains, using whatever skill sets may be necessary.

References

1. Korr IM. Some thoughts on an osteopathic curriculum. AAO Yearbook. 1979-1980:254.
2. Groopman J. *How Doctors Think*. Mariner. 2008.
3. Personal Communication, Edward G. Stiles, DO. February 2, 2024.
4. Ching LM, Benjamin BA, Stiles EG, Shaw HH. Enabling health potential: exploring nonlinear and complex results of osteopathic manual medicine through complex systems theory. *J Osteopath Med*. 2023;123(4):207-213. <https://doi.org/10.1515/jom-2022-0118> ■