

Steve Server//

“What sort of pain is it?”

Often, when health care providers inquire after patients’ pain, we get a sort of flummoxed look. In response, we sometimes get a confused chuckle.

As first year medical students, we are trained to differentiate sorts of pain: crampy vs. electrical/burning; dull vs. sharp; localized vs. radiating. As our medical training proceeds, we correlate unique combinations of modifiers with specific disease processes: sharp, localized, reproducible pain in the chest makes us less concerned for a heart attack, for example; crampy chest pain and pressure felt in the left arm or jaw and associated with sweating and nausea, however, will get us rather anxious about the possibility of infarct. We try to simplify our questioning to drill down to the “fundamental characteristics” of pain we are eager to clarify. The idea is that by reducing pain to its “objective” features (location, timing, severity, quality, associated symptoms, things that make it better/worse), health care providers are better able to interpret this often woolly, subjective phenomenon.

I’ve been thinking a lot about how we learn to assess pain recently. I just finished watching the HBO Max documentary miniseries “Crime of the Century,” a well-researched and well-presented investigation of what appears to be a vast conspiracy to prescribe as many opiates as possible—with many tens of thousands of overdose deaths to show for it. It made me reflect upon the way that I as a medical student have learned to encounter pain in the exam room.

Fundamentally, I believe the opiate crisis is related to a deeper conceptual issue in medical training: reductionism.

Let’s put it this way. A patient comes into urgent care literally crying that her foot has been in terrible, searing pain. A doctor quickly comes to attend to her, and she begins to ask questions of the patient. In that moment, the physician asking about a patient’s pain has a specific agenda to pursue—that is, translating the stuff of life into chunks of data—on the road to providing the “correct” medical treatment for a patient’s pain. But the agenda pursued by the doctor—namely, finding out the cause of the pain and providing adequate analgesia—may not actually provide the care that the patient desires. When our patient comes into urgent care, she is confronted by a physician asking her to dissect the whole, rich complexity of her current predicament into tidy, discrete signifiers. Patients, unlike doctors, understand the pain in its totality, imbuing it with

personal meaning, which a doctor both is not privy to from the outset, but also is not necessarily interested in as they quest to reduce and solve the *pain itself*. But pain per se is not the problem. It is our patient who wants to be cared for—herself and her pain as a part of that self. She does not want to be treated as a consciousness riding along with a problem to be medicated.

Unfortunately, physicians are in the habit of thinking of people as complicated scientific mechanisms. They are heirs to a system of medical education that encourages reductionism. This is an unfortunate bequest of the 1910 Flexner Report, which precipitated a greater emphasis on basic scientific learning—biochemistry, cell biology, etc.—in early medical school. Students observe, during prerequisite courses and in medical school, that though a problem may appear insurmountably difficult, a return to basic mechanical principles will always help resolve the issue. They learn that reductionism helps find the right answer.

As Dr. James Woodruff writes, in a fascinating article regarding the philosophical bases of effective medical education, “medical science has equipped physicians with powerful tools to favorably impact health, but a reductionist approach alone is insufficient to optimally address the complex challenges posed by illness and public health” (Woodruff, 861). Caring for patients is not like solving a mathematical proof, or developing carbon-capture technology—in which there is a definitive, “correct” answer or outcome that is able to be arrived at with enough research and labor. Rather, outside of lecture halls and in the hospital space, there is no *a priori* “correct” outcome derivable from basic principles. As anyone who has interacted with humans before can attest, as a species, we are simply too multifaceted to make any definitive, necessary conclusions about our behavior.

This is all to say that pain is more than the simple act of nociception, neurons responding to a noxious stimulus. Particularly in its chronic form, pain is a complex social, cultural, and physiological experience, which differs person to person, and even within an individual person’s lifetime. As such, any cognitive framework that reduces it to a basic “If a → b” will inevitably be inadequate to the task.

So how has medicine changed in response to the opiate crisis? As medical students, we have learned to be particularly careful when it comes to opioid prescription. That—far from the initial marketing from the likes of Purdue Pharma—drugs like Oxycontin can indeed lead to opiate use disorder, and can indeed be crushed and injected or snorted. That taking a good substance use history is a critical part of an exam prior to prescription of opiates. That the goal for pain-control ought not be absolute zero by default, but rather that level should be discussed with the patient. That naloxone saves lives. These are all important lessons that medicine has had to learn the hard way, and that, I believe, will make physicians more judicious in their prescription of these substances.

I worry, however, that physicians continue to apply their favored cognitive strategy to the opiate crisis.

An article in the New York Times earlier this week suggests as much. The feature describes the agony with which Lisa Craig, an African American woman with Sickle Cell Disease, must contend on a daily basis, as physicians raise their eyebrows to her entreaties for adequate analgesia: “Ms. Craig felt doctors were prone to stereotyping her as an addict cadging narcotics and didn’t believe in the extremity of her suffering.”

I worry that we have merely traded one form of reductionism for another.

Instead of ping-ponging between two inadequate, but simple, extremes, what will be necessary is an earnest engagement with pain in its totality, in its rich phenomenology, its social facets, all of those things that the physicians all too often dismiss as simply the extraneous information provided by a “bad historian.”

Complexity is not a bad thing in medicine. It’s the only thing.

References

John Elligon. “‘On That Edge of Fear’: One Woman’s Struggle With Sickle Cell Pain.” *New York Times*. May 30, 2021. (<https://www.nytimes.com/2021/05/30/us/sickle-cell-black-women.html?smid=url-share>).

James Woodruff. “Accounting for complexity in medical education: a model of adaptive behaviour in medicine.” *Medical Education* 2019; 53: 861–873 doi: 10.1111/medu.13905.