Analogy: A Powerful and Underutilized Bedside Tool

Sophie was back with another one of her kids in tow. This was the fifth time in a month. I could almost hear my staff roll their eyes when she walked through the door. Even though she was a denizen of the clinic, I was about to meet her for the first time because I usually covered other sites. Although I was out of the loop, my medical assistant and x-ray tech were more than eager to fill me in as soon as she was out of earshot.

"I can't believe she's here again."

"She always brings her kids in whenever they have the sniffles."

"The PA who saw her last time spent like 20 minutes explaining why antibiotics don't work for viral infections and she still just keeps coming back and asking for a Z-Pak."

The unsympathetically whispered complaints from my staff about her decisions to seek care at our UC came one after another in almost choreographed syncopation.

I opened her son's chart. He was 4 and had been seen in the clinic about 15 times in his short life. My team members' comments weren't off the mark. "Nasal congestion. Cough. Eye discharge. Sneezing, fever for 4 hours." The chief complaints for this preschooler's visits read like the list of symptoms for viral URI on WebMD.

I grabbed my stethoscope, put a smile on my face, and went to go meet Sophie and her son. I'm sure my staff thought my smile was forced—the product of an internal pep talk I might have given myself—but it wasn't. It may seem crazy, but I actually enjoy these encounters. They're fascinating. Of course, I don't mean in the sense of solving a diagnostic dilemma. Quite the opposite, actually. Usually within 10 seconds of these visits, almost any UC clinician would feel well assured that the child needs nothing more than supportive care—and the parent needs only reassurance.

The problem arises, however, in these frequent scenarios when the patient (or parent) believes that more than reassurance is required. Often "more" means prescribing antibiotics, but conflicts with patients over differences of opinion about what is (or isn't) medically necessary can occur with decisions surrounding imaging studies, vaccinations, referrals, and really anything that we are the gatekeepers of as clinicians. And to be certain, conflictual interactions can be draining. However, what I enjoy about these encounters is not the conflict but rather uncovering the root cause of the discrepancy in perception. The most frequent etiology of this is simple: an inaccurate understanding of their condition.

With relatively few exceptions, we have a much better grasp of the pathophysiology and appropriate treatment for the problems patients present with than they do. It may seem obvious, but I have observed this immutable reality result in daily frustration among my colleagues. Generally, this manifests with workroom complaints of disbelief about the uninformed comments and opinions they've heard from recent patients. But why should this be surprising at all? We have gone through extensive training and have the wisdom of our clinical experience. They almost always have neither. Would we think it reasonable for a mechanic to judge us for a less-than-complete understanding of the seriousness of a leaky head gasket or frayed timing belt? Sure, it might make our jobs easier if our patients knew everything that we did. But that scenario is unlikely and, were it true, we'd probably find ourselves irrelevant and quickly out of a job.

Instead, we must face the inexorable discrepancy in clinical knowledge between us and our patients head on during every shift. Furthermore, our patients don't need to (or want to) become expert in all medical knowledge. They just want to understand the cause of their current symptoms and what's going to happen. And most clinicians enjoy teaching patients about their respective diagnoses. There's reward in transmitting the wisdom we've worked so hard to acquire to a grateful and engaged audience. The challenge is that we rarely have enough time to do it well.

Especially in UC, we have vanishingly few moments to spend with each patient. Moreover, the same conversations arise with mind-numbing frequency because the vast majority of our patients present with one of about five to 10 complaints. Additionally, we often find that, even when we try, our efforts are fruitless. This is actually why my colleagues resented Sophie. They saw no impact, and

consequently derived no reward for their investments of time and energy in explaining the differences between viral and bacterial infections. This is our essential Sisyphean struggle, and it can quickly lead to resignation, disillusionment, and burnout.

However, things don't have to be like this. There's hope for change if we approach these situations with a common and often underappreciated tool that we are all familiar with: analogy. Analogies basically assert similarity between two seeming unlike things. They are a communication tool which make the unfamiliar understandable by comparison to something familiar, and they offer the most powerful tool for distilling complex ideas and communicating them quickly.[1]

This is far from a novel concept. Aristotle said, "The greatest thing is to be a master of metaphor," and the transcendentalist Henry David Thoreau wrote that "All perception of truth is the detection of an analogy." In other words, comparators are fundamental to human understanding. In fact, analogies are so fundamental that we all use them unconsciously on a daily basis. I've used at least a handful already in this editorial and it's likely they have flown so sufficiently under the radar that you didn't even notice them.

This highlights the power and simplicity of analogy. A good analogy is highly efficient and largely inconspicuous. This is why John Pollack chose the title *Shortcut* for his big-idea book, in which he argues for the value of analogy as an instrument for teaching and understanding. His central contention is that analogy is the most valuable hack for teaching and persuasion because, with an adeptly chosen analogy, a foreign and complex idea can be communicated effectively in a few sentences or less. He further posits that all human understanding actually is based in analogy.

In other words, we must always find a familiar comparator when trying to understand a foreign concept.

This process can unfold in two ways. We can either be provided with an analogy by an outside source or we can come up with one on our own. Again, this is often an unconscious endeavor, but it's what produced the "A-ha!" moments we all have experienced during our schooling as we tried to wrap our minds around nuanced concepts in organic chemistry or immunology. Think back to someone you considered an outstanding professor during your training. Chances are they provided useful analogies quite often rather than forcing you to develop your own independently. This is why *Shortcut* is such an apt title for Pollack's deep dive into metaphor and analogy; the title is a metaphor in its own right.

Analogies provide shortcuts towards understanding obscure and/or complicated ideas. They allow the teacher to take the student from confusion to comprehension quickly and without necessitating excessive mental effort on the part of the learner. And this is exactly the communication tool we need in UC. Rather than taking 5 to 10 minutes of our valuable time and energy giving an elaborate mechanistic explanation of the pathophysiology of how a DVT forms—one that will also usually leave the patient more confused than enlightened—we'd be wise to try comparing it to a clogged drain and anticoagulation to Drāno instead. By extension, a pulmonary embolism could be compared to a clog that's moved from blocking the drain to blocking a pump, for instance.

Analogies are additionally perfectly suited for application in UC practice because we deal with a fairly limited number of complaints and scenarios repeatedly. We can all easily think of at least three or four conversations we have with patients on every shift. Given this reality, with minimal extra effort, we can practice honing our analogies for the most common situations we encounter and essentially create scripts which we may then access whenever these conversations arise.

In using scripted analogies frequently, we can save our mental energy for the numerous other cognitive demands of the job while simultaneously teaching our patients more efficiently and effectively by avoiding an overly scientific discourse that they'll quickly forget. Everyone wins. We see patients more quickly. Patients understand their condition better. And this better understanding, in turn, leads to better satisfaction ratings.[2,3]

The obvious next step in implementation is considering how we can develop analogies that serve our patients well. In his book, Pollack deconstructs the mechanics of analogy, stating that there are five components necessary for effectiveness:

1. **An analogy should use something familiar to explain the unfamiliar.** Think about the most universal human experiences when choosing an analogy. For example, analogies referencing a weather forecast are better than analogies referring to gambling to illustrate probabilistic reasoning. Analogies involving dysfunction or maintenance of a car are better choices than those involving farm equipment.
2. **An analogy should highlight similarities and obscure differences.** Analogies are generally structured in an "X is like Y" format. This formula is so common in human communication that we can safely adopt it wholesale without worry of seeming distractingly conspicuous. That being said, the more intuitively apparent the similarity, the more engaged the listener will be.
3. **An analogy should identify useful abstractions.** In other words, analogies are more memorable when

they clarify something that is relevant to your audience. Again, this is generally the case if you're explaining a patient's current ailment.

4. **An analogy should tell a coherent story.** Just as coherent stories through analogy shed light and enhance understanding, outlandish and incoherent analogies can be distracting and counterproductive.
5. **An analogy should resonate emotionally.** Feelings are highly tied to memory. Like Maya Angelou said, "People will forget what you said…but people will never forget how you made them feel." Analogies that conjure positive emotions will enhance the "stickiness" of what you convey. Conversely, an unsettling analogy comparing something to child abuse or other violence, for example, would detract from its efficacy.

If this is a foreign way of thinking creatively for you, it may seem like finding the right analogy for certain situations presents an overwhelming challenge. Certainly, like trying anything new, it would be unrealistic to expect expert level performance as a beginner. But creating analogies is a cognitive skill that can be developed and honed with practice like doing crossword puzzles or playing chess.

Additionally, we are all surrounded by colleagues who deal with the same clinical scenarios and conversations we face. Rather than trying to reinvent the wheel by developing our own analogy, another strategy for building a codex of analogy scripts is to simply ask your fellow clinicians which analogies they've used and found effective. (In fact, I've long dreamed of the existence of a shared online medical analogy database organized by disease states and patient FAQs. If someone more tech-savvy than I is inspired and would be motivated to run with this idea, I believe creating such a Wiki-style resource would be a great service to our patients and fellow clinicians alike).

I brought this conviction towards the power of analogy to the exam room when I spoke with Sophie that afternoon. After listening attentively to her concerns for a few minutes, my suspicions were supported. She wasn't unintelligent. She was concerned about her child and no one had ever explained the differences between viral and bacterial infections to her in a way she understood. After praising her attentiveness to the health of her children, I shared that we were on the same team. We both wanted what was best for her son. This diffused the slight adversarial tension that was palpable when I entered the room.

Then I launched into the analogy: "An infection in our body is like an infestation in a garden. Sometimes the infestation is caused by bugs and other times it's caused by weeds. We use chemicals to treat the infestation only if they're going to kill the pests we have so that we can protect our garden from getting destroyed. But if we pick the wrong chemical, it will not only damage our garden because we are putting a toxic substance in the soil, but it will also fail to do anything for the actual pests causing the problem." I had her attention.

I continued, "Imagine that bacteria are like bugs and viruses are like weeds. Then antibiotics are like insecticides, so they don't kill the weeds. And like insecticides can damage the soil, antibiotics can damage the body by causing things like diarrhea and rashes. Some can even affect how our brains and nerves work. This would be ok if they were killing the pests that are the cause of the problem, but different antibiotics are designed for the different pests. Our training and medical science allow me to know with near certainty most of the time what type of 'pest' patients are dealing with. And your son is dealing with a 'weed' situation and not a 'bug' situation." Her posture eased and she began to nod as I concluded the metaphor.

"Thankfully, when it comes to almost all viruses, our body's immune system works better than any drug. You can imagine that our bodies are making our own internal weed killer. It just needs a little time to fully kick in and take care of the infestation."

We both left the room content after a less than 10-minute interaction. Sophie was satisfied to leave the visit without an antibiotic prescription, feeling reassured it was best for her son, and I was satisfied because I accomplished what I knew to be the best outcome for the situation without conflict. Before I'd made a conscious effort to incorporate and rely on analogy as an essential communication tool, I used to detest this sort of visit.

If you can relate, try using more analogies in your practice. Sure, your patients will appreciate it, but equally important, you'll be able to find enjoyment in the repetitive conversations you dread most. Think of it like a remodel for your career. ■

References

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