

Virtual Mentor

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Challenging Diagnoses

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Originally, I thought about calling this article something like, “Why I No Longer Watch *House, MD*.” My partner got me started on this show, convincing me that as someone with an interest in medicine and health care ethics it would be part of my homework in developing cultural references. Once I realized the show was modeled on the Sherlock Holmes-type deductive mystery—rather than, say, being an accurate portrayal of medicine, or the complicated moral dilemmas raised daily in a hospital—I could tolerate it better. Still, it’s the repeated abuse of a recurring character—the diagnostic procedure—that keeps me from watching on a regular basis.

The method behind the differential diagnosis procedure (DD) is common knowledge within medical school. In *House, MD*, the DD is a prominent character, one that is created, allowed to fail repeatedly, and eventually saves the day in the last 5 minutes. (Well, at least, most of the time.) The DD begins with taking a patient’s history and observing symptoms. Possible diagnoses are considered, while other possibilities are simultaneously ruled out. After compiling the list of possible causes, one can determine appropriate testing, based on urgency and likelihood. (Here enters the often repeated maxim, “When you hear hoof beats, think horses, not zebras.”) One might test for competing diagnoses based on their respective likelihood or urgency, but in the end the DD is a *tool* of medicine. Its purpose is to make providing medical care easier and more consistent and to allow the patient to receive better care.

I won’t extol here the virtues of developing good diagnostic skills, which is a significant portion of what is developed in medical education and enculturation. As physicians develop the skill of clinical judgment, Kathryn Montgomery writes, they must “know the rules [of medicine] and when to break them, how to use logic and when to ignore its conclusions. Putting it all together, they must decide whether to refer the patient for further tests and with what sort of expectation” [1]. The DD is not an equation into which a physician enters the proper symptomatic data; using the DD is part of a clinical judgment that needs to be crafted and refined over time and with experience.

What I want to discuss here are some of the problems that often result in using the DD without proper reflection. I take these harms to be typically unintentional and frequently underdiscussed. These harms can influence the lives of both patients and physicians. (To continue an earlier metaphor: we might examine whether and how the terrain has been disturbed after the hoof beats pass.)

Diagnosis and the Unexplained: The Harm to Patients

The decision-tree approach to differential diagnosis works rather well, allowing physicians to move from observed symptoms to limiting causal lines to the eventual diagnosis. Much of the time, this works well. But here, I'd like to complicate the process of diagnosis in a number of ways. First, it's important to consider that, despite the enormous success of the practice of medicine, significant gaps remain. For instance, by some estimates, for 20-40 percent of medical cases, no proper diagnosis or causal story is ever developed [2]. Although these cases may be untreated (or forced into one diagnostic category or another), they typically resolve. (Given Dr. House's faith in the scientific aspects of medicine, the failure to diagnose is more often treated as a failure of the physician, rather than an honest limitation to the practice of medicine.)

An important portion of these undiagnosed cases will continue as chronic illness. Kirsti Malterud describes medically unexplained disorders as "chronic and disabling conditions, presenting with extensive subjective symptoms, although objective findings or causal explanations are lacking" [3]. Common examples might be fibromyalgia, chronic fatigue syndrome, irritable bowel syndrome, or temporomandibular joint disorder (TMJ). Similarly, other physicians speak of medically unexplained symptoms [4] or somatization syndromes. Diagnosis and care remain complicated, since both physicians and patients are uncertain about the facts of the case or the best plan of treatment [5].

The problem for women [6], especially, is that the DD frequently erases their experience of suffering. Because etiology is unknown (or deeply contested), the diagnostic process often fails to categorize their suffering properly. Patients may receive multiple and conflicting diagnoses from specialists. Other patients are told the lack of clear physical causes points to a psychological origin for their suffering, that it is imagined, or that they are lying [7].

What follows when a clear cause is unknown? Here are a few suggestions of what to avoid in your thinking. First, just because a clear cause has not been identified does not mean that a cause does not exist or that it will never be discovered. Second, a lack of clear physical etiology is not, in itself, proof that the patient's suffering has psychological origins (i.e., that the source of suffering is "all in the patient's head"). Finally, many patients with chronic pain conditions report they are no longer seeking a cure. Instead, they are seeking a trusting relationship with a physician who takes their suffering seriously and is willing to continue to explore ways to lessen it. This openness to reconsidering diagnosis is more appropriate than the blind faith in the DD as a tool of certainty.

Physicians Can Be Harmed, Too

Physicians, too, may suffer a kind of moral harm from relying on an inadequate notion of the DD. In diagnosis, physicians need to adopt a certain attitude, one I've been thinking of as being "tolerantly open." So, what does this mean? It's a certain stance one can take in understanding diagnosis, in how to approach the world.

Physicians using the DD tool are often swept up into thinking that the diagnosis developed is certain and correct [8]. Realize, though, both the DD tool and categories of disease are human creations.

What does it mean to consider diseases as human constructions, rather than some purely objective discovery of the natural world? To preempt some readers' worries that this as the theory-speak of a philosopher, a few examples may help me make my point.

Consider the disease "osteopenia," or the thinning of bone that comes prior to osteoporosis. Its diagnostic criteria were largely settled in 1992 by experts on osteoporosis [9]. For many women (across a range of ages), osteopenia has caused a lingering worry that their bones are more likely to fracture [10], not to mention the specter of costly drug treatments. Here's one of the important things to keep in mind both about this disease and the process of diagnosing it: the specific boundaries between normal bone density, osteopenia, and osteoporosis were developed by committee. As Alix Spiegel reports, "So there in the hotel room someone literally stood up, drew a line through a graph depicting diminishing bone density and decreed: Every woman on one side of this line has a disease" [9]. It was not exactly a random determination, but there wasn't an objective reason why the line was drawn there (rather than a bit higher or lower). Notice, this also means thousands (and eventually, millions) of women will be diagnosed with osteopenia, while, if the criterion had been more restrictive, they would have continued to be seen as healthy and normal.

Consider another example: for much of medicine's history, homosexuality was considered to be a disease state. In 1973, the American Psychiatric Association (APA) ceased to recognize homosexuality as a disease and removed it from the *Diagnostic and Statistical Manual of Mental Disorders (DSM)*. So, we should ask, well, what changed? Homosexuality didn't change that year, so why the removal from the manual? The story is complicated, so here are a few threads to keep in mind. The *DSM* has always been created by committees of experts. As we know, though, experts are slow to change. It was through the social and strategic activities of gay and lesbian psychologists and therapists who were working in complicated networks in the APA—not on better or newer scientific research—that homosexuality eventually was removed from the *DSM* [11]. Perhaps for some, this idea seems archaic, a throwback to a long-ago prejudice. But for many, this has changed in our lifetime. The removal was monumental in allowing gays and lesbians (therapists and lay folks) to live open lives, not to have to shoulder the unnecessary burden of a clinical diagnosis. The liberating change, though, was only possible because certain psychiatrists (conservative and liberal) remained open to reconsidering their diagnostic categories and criteria—things they once took as certain and obvious.

Again, diagnostic categories and the DD are not objective reflections of the world. They are human-created tools, and they can have unintentional consequences. While

Dr. House might see the humanity in medicine as a scientific failing, I continue to see hope. In cultivating the ability to be tolerantly open, physicians can continue to use the DD while remaining aware that they may at times need to revisit and reevaluate their diagnostic categories and procedures.

When it comes to my own TV viewing habits, though, it seems unlikely I'll reconsider allowing Dr. House back into my life. And let's face it: if he did cultivate his own tolerant openness, it *would* make him a better doctor...but also a less interesting medical detective.

References

1. Montgomery K. *How Doctors Think: Clinical Judgment and the Practice of Medicine*. New York: Oxford University Press; 2005: 85.
2. Nettleton S, Watt I, O'Malley L, Duffey P. Understanding the narratives of people who live with medically unexplained illness. *Patient Educ Couns*. 2005;56(2) 205-210.
3. Malterud K. Symptoms as a source of medical knowledge: understanding medically unexplained disorders in women. *Fam Med*. 2000;32(9):604.
4. Smith RC, Lyles JS, Gardiner JC, et al. Primary care clinicians treat patients with medically unexplained symptoms: a randomized controlled trial. *J Gen Intern Med*. 2006;21(7):671-677.
5. Barsky AJ, Borus JF. Somatization and medicalization in the era of managed care. *JAMA*. 1995;274(24):1931-1934.
6. In saying "women" here, I do not want to imply that men cannot become ill with these symptoms. Instead, it is to highlight the fact that medically unexplained disorders are importantly gendered. Women are more frequently diagnosed than are men.
7. DeCoster B. Lying reconsidered: a gendered history of conversion disorders and the erosion of patients' agency. *AJOB Neuroscience*. 2010;1(1):67-68.
8. For a richer and longer discussion about why the search for certainty in medicine is misguided—albeit a common goal—I would direct readers to Montgomery's *How Doctors Think*.
9. Spiegel A. How a bone disease grew to fit the prescription. National Public Radio.
<http://www.npr.org/templates/story/story.php?storyId=121609815&sc=emaf>. Accessed November 16, 2011.
10. Valentine V. Gwyneth Paltrow, NPR has some news for you and your bones. *Shots*. National Public Radio.
<http://www.npr.org/blogs/health/2010/08/19/129303014/gwyneth-paltrow-npr-has-some-news-for-you-and-your-bones>. Accessed November 16, 2011.
11. 81 words. *This American Life*. National Public Radio.
<http://www.thisamericanlife.org/radio-archives/episode/204/81-words>. Accessed November 16, 2011.

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