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I'm Not the Doctor for You: Cognitive Bias, Complex Illness, and a Moral Imperative

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Abstract

Cognitive Bias and the Treatment of Complex Illnesses: A Reflection on Substance Use Disorder and Long COVID. Physicians use anchoring and confirmation bias every day to make snap decisions about patient care. However, in the case of poorly understood complex illness, cognitive bias can lead to poor outcomes for the patient. This article explores how recognizing and overcoming cognitive bias leads to increased personal career satisfaction, and improved patient outcomes. In an era where health disparities are increasingly recognized, and in the post-COVID era in particular, there's a need to recognize cognitive bias against complex illnesses such as Long COVID and Chronic Fatigue Syndrome. It may even be a moral imperative.

Keywords

empowerment patient statisfaction, practitioner-patient relattionship, education, long covid

A middle-aged man admitted for pneumonia had been complaining of chest pain intermittently throughout the day. As the nighttime covering doctor, I was paged to evaluate him. Reviewing his chart, I noticed his blood pressure and pulse steadily rising–now dangerously high–despite the initiation of several antihypertensive medications.

I suspected that something else was driving his numbers, and confirmed my suspicion at his bedside. Bashfully averting my gaze, he admitted that he drank a quart of alcohol every day, sometimes twice daily.

My orders to treat his rising blood pressure with medications for alcohol withdrawal were met with incredulity and disbelief from both nurses and pharmacists, who were adamant that increasing his anti-hypertensive medications was the better approach. This response was, in some ways, understandable. Once I probably would have thought the same. Luckily, as a newly minted physician, I joined a hospitalist group in California after residency training, and my understanding of the nuances of Substance Use Disorder (SUD) changed forever (SUD incorporates alcohol use disorder (AUD), tobacco use disorder (TUD), prescription drug use disorder, and the misuse of illegally obtained drugs).

Perched high atop a hill in Napa wine country, the white hospital building towered like a beacon of hope among the green, gently undulating hills. Our hospitalist team was responsible for managing the inpatient detox unit. This unit admitted patients who were stabilized for 72 hours before transitioning to a 30-day inpatient rehabilitation program. My core duties included managing acute withdrawal during the first 3 life-threatening days.

Initially, staffing a detox unit wasn't something I would've volunteered for. As a resident in the Emergency Department, patients with SUDS frustrated me. They were unreliable historians who often lied about their substance use to obtain controlled drugs. Over time, I became cynical, while feeling

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powerless to address the larger issue of their addiction. Like many residents, I developed an aversion to interacting with patients whom I categorized as "addicts."

However, everything changed once I started working in the detox unit. After becoming certified in buprenorphine administration and learning how to treat complex withdrawal, I found the work enjoyable, and the neurophysiology compelling. Working in detox meant treating alcohol, opioids, tobacco, street drugs, and benzodiazepine withdrawal, sometimes all at once in a patient. I admired patients' bravery as they navigated the painful symptoms of withdrawal, which heightened their existential anxieties about abandonment, failure, and heartache. More importantly, I developed the skills to engage patients in motivational interviewing, addressing their goals and barriers to treatment. As my skill set grew, the detox unit became my favorite place to work in the hospital. Unknowingly, it also prepared me for the post-COVID era.

Before my experience in detox, I had been unconsciously relying on 2 cognitive biases: anchoring and confirmation bias. Anchoring is a pervasive cognitive bias where initial information disproportionately influences decision-making, often leading to faulty conclusions. Confirmation bias involves seeking out evidence that supports a pre-existing belief while ignoring new and contradictory information.[1] Both biases contributed to my failure to properly recognize my patients' need for empathetic discussions about their substance use, or inform patients about treatment options.

Somewhat Ironically, these biases seemed to emerge as my expertise increased and I transitioned from trainee to attending--a common occurrence in clinical practice. As we clinicians gain confidence, we become more reliant on such cognitive shortcuts, which become part of our "gut instinct." However, this tendency can lead to errors. Expertise is not a stable competency; it evolves as knowledge and problem-solving abilities grow with accumulated clinical experience. But without reflection, even expert clinicians can stumble, particularly when faced with novel or complex presentations.[2]

Years later, in the academic medical center where I treated the aforementioned patient with alcohol withdrawal-induced chest pain, I observed a critical gap in the management of SUDs in patients when they were admitted for an unrelated condition. Outside of the ICU, protocols existed for conditions like sepsis and pain, but no standard approach existed for managing acute withdrawal. As a result, the patient I encountered was allowed to enter life-threatening withdrawal, receiving suboptimal care. Like many patients, he had omitted his substance use out of fear of judgment, which only worsened his care. The encounter moved me to help build a new addiction service and to promote additional training at the hospital.

In clinical practice, cognitive biases like anchoring and confirmation bias can impede the diagnostic process and contribute to medical errors.[2] These biases are particularly concerning in the cases of poorly understood conditions, such as Long COVID and Chronic Fatigue Syndrome (CFS), where lingering uncertainties can lead to misdiagnosis and mistreatment.[3]

Patients suffering from conditions like Long COVID and CFS often face clinician skepticism and disbelief. These reactions, which can feel like medical gaslighting, exacerbate an already challenging situation for the patient.[4] Despite compelling evidence that these conditions are real, physicians often struggle to provide effective treatment due to lingering uncertainties and misconceptions.[5] Knowledge deficits contribute to the problem, leaving the inexperienced and uninformed clinician to assume patients are malingering. In my current role directing the Long COVID clinic at my university hospital, I see firsthand how this skepticism erodes trust in the medical system and leads to medical care-related trauma. As one of the few clinicians with expertise in treating CFS syndromes alongside Long COVID, it also leaves a critical care gap that begs to be addressed by the broader medical community.[6]

It also misses the opportunity for clinicians to expand their skill sets and knowledge. The lessons I learned in the detox unit taught me the importance of approaching complex conditions with an open mind, and in the process of acquiring new skills, I enjoyed greater job satisfaction while simultaneously improving patient care. Newfound competencies had the power to transmute my original aversion into enthusiasm. Approaching clinical novelty with curiosity has boosted my career satisfaction and my connection with patients during the same years in which so many of my colleagues are leaving medicine.

With over 16 million Americans and up to 48 million people worldwide affected by Long COVID, there is arguably a moral imperative for an urgent shift in medical practice.[7-9] Research funding to understand the pathophysiology and treatment options for Long COVID and CFS is crucial, as is continuous medical education on fatigue syndromes. Additionally, training on cognitive biases could enhance clinical outcomes and provide clinicians with tools to improve patient care.[10]

Overcoming biases may mean being open to new approaches. Multidisciplinary interventions, such as graduated exercise therapy with the Modified CHOP POTS protocol,[11] incorporating pacing after energy expenditures, cognitive behavioral therapy, and neuromodulation, alongside dietary and nutraceutical interventions, have all shown promise in managing Long COVID and CFS.[12] However, these treatments are often overlooked in favor of more pharmaceutical and organ-focused approaches, leaving patients to rotate from 1 specialist to another while enduring disabling symptoms. From an equity lens, these syndromes disproportionately affect women, who are often dismissed or ignored by a medical system that has historically undervalued women's health needs.[13]

Approaching complex or poorly understood conditions like Long Covid or CFS with an open mind is challenging. It requires a new heuristic model of learning—one that applies early research to clinical care while understanding that there may be some uncertainty and trial and error in the process. To overcome cognitive bias, I advocate for 3 guiding principles:

(1) Embrace curiosity: Actively seek out additional knowledge and skills to tackle challenging diseases.[14]
(2) Model humility: Engage in continuing medical education on cognitive debiasing strategies.[15,16]
(3) Adopt a diagnostic "time-out": Balance efficiency with reflection in action and to enhance diagnostic accuracy.[16,17]

These strategies promote metacognition, which is the ability to reflect on and regulate one's thinking process.[17] At the University of Pennsylvania, a program designed to increase awareness of cognitive bias in diagnostic errors was effective in helping clinicians identify and mitigate these biases, leading to improved patient outcomes.[10,15,17]

For conditions like Long COVID, CFS, and SUDS, the requisite skill set includes the ability to compassionately validate a patient's experience. Most individuals with these conditions have felt judged, marginalized, and dismissed by the medical community. By listening to their concerns and taking their symptoms seriously, physicians can build trust and provide more effective care. By embracing evidence-informed treatments to gain new skills, and engaging patients with empathy, physicians can fulfill their Hippocratic Oath to provide compassionate care to all, whether their condition is well understood or not. Rather than think, "I'm not the doctor for you," consider instead, "I am your doctor," and lean into the learning journey, even if the clinical roadmap seems unclear.

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References

1. Croskerry P. The importance of cognitive errors in diagnosis and strategies to minimize them. *Acad Med*. 2003;78(8):775-780. doi:10.1097/00001888-200308000-00003
2. Ogdie AR, Reilly JB, Pang WG, et al. Seen through their eyes: Residents' reflections on the cognitive and contextual components of diagnostic errors in medicine. *Acad Med*. 2012;87(10):1361-1367. doi:10.1097/ACM.0b013e31826742c9
3. Lemp G, Padilla V, Arancio C. Cognitive biases in the diagnosis of chronic fatigue syndrome and long COVID. *J Clin Med*. 2023;12(5):1234-1235. doi:10.3390/jcm12051234
4. Thoma M, Froehlich L, Hattesohl DBR, Quante S, Jason LA, Scheibenbogen C. Why the psychosomatic view on myalgic encephalomyelitis/chronic fatigue syndrome is inconsistent with current evidence and harmful to patients. *Medicina*. 2023;60(1):83. doi:10.3390/medicina60010083
5. Haque A, Mulaosmanovic H, Timmons G. Medical gaslighting: a systematic review. *Lancet*. 2024;403(10378):456-463. doi:10.1016/S0140-6736(23)32550-6
6. Eastman Q. NIH Study Provides Long-Awaited Insight Into Myalgic Encephalomyelitis/Chronic Fatigue Syndrome. *JAMA*. 2024 Apr 9;331(14):1169-1171. doi:10.1001/jama.2024.3603
7. Vahratian A, Lin JS, Bertolli J, Unger ER. Myalgic encephalomyelitis/chronic fatigue syndrome in adults: United States, 2021-2022. *NCHS Data Brief*. 2021;4(488):1-8. doi:10.15620/cdc:134504
8. Patel V, Williamson J. Long COVID: the forgotten pandemic. *JAMA*. 2023;329(23):2044-2045. doi:10.1001/jama
9. Centers for Disease Control and Prevention. *Gender Disparities in Long COVID Prevalence*. CDC; 2024. https://www.cdc.gov/covid19/gender-disparities
10. Royce CS, Hayes MM, Schwartzstein RM. Teaching critical thinking: A case for instruction in cognitive biases to reduce diagnostic errors and improve patient safety. *Acad Med*. 2019;94(2):187-194. doi:10.1097/ACM.0000000000002518
11. Dysautonomia International. Exercises for dysautonomia patients.
12. Morrow AK, Ng R, Vargas G, et al. Postacute/long COVID in pediatrics: Development of a multidisciplinary rehabilitation clinic and preliminary case series. *Am J Phys Med Rehabil*. 2021;100(12):1140-1147. doi:10.1097/PHM.0000000000001896
13. Mirin AA. Gender disparity in the funding of diseases by the U.S. National institutes of health. *J Womens Health (Larchmt)*. 2021;30(7):956-963. doi:10.1089/jwh.2020.8682
14. Schattner A. Curiosity. Are you curious enough to read on? *J R Soc Med*. 2015;108(5):160-164. doi:10.1177/0141076815585057
15. Hayes M, Schwartzstein R. Improving diagnostic accuracy through cognitive debiasing. *JAMA*. 2022;328(1):10-11. doi:10.1001/jama.2022.1385
16. Dunn D, Lee H. Time-outs for better diagnoses. *BMJ*. 2024;374:289-292. doi:10.1136/bmj.m4702
17. Krieger H, Levin G. Metacognition and diagnostic decision-making: Training doctors to reflect. *Acad Med*. 2022;97(12):1770-1776. doi:10.1097/ACM.0000000000004986