

## Behavioral Architecture In Health Care

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## AMA Journal of Ethics®

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### FROM THE EDITOR IN CHIEF

#### Health of We the People

Audiey C. Kao, MD, PhD

*We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.— That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed.*  
**Declaration of Independence<sup>1</sup>**

As America's documentary crucible, the Declaration of Independence espouses ideals of equality, humanity, and democracy. The historical truth that its principal drafter and every signer were White men, many of whom owned people as property, is an indelible reminder of where we started, how far we have marched, and how much further we need to go to realize our nation's founding ideals.

Recently, I had an opportunity to interview members of a bipartisan commission established by the American Academy of Arts and Sciences, a learned society that was founded only a couple years after the Declaration was signed.<sup>2</sup> Launched in 2018, the Commission on the Practice of Democratic Citizenship was convened to develop a set of recommendations aimed at reinventing American democracy during an era of distrust in political institutions and cynicism about representative government's ability to promote the public welfare.<sup>3</sup> The sudden arrival of and haphazard response to a novel coronavirus have only served to infect the body politic with greater doubt and pessimism.

While we need those elected to do their jobs and be held accountable as public servants, it is too simple and convenient to deny our personal responsibilities and blame others for the state of our union. In a representative democracy, we the people are the government. As Congressman John Lewis, the late civil rights icon, said in a final, posthumous message to the American people:

Democracy is not a state. It is an act, and each generation must do its part to help build what we called the Beloved Community, a nation and world society at peace with itself.... Ordinary people with extraordinary vision can redeem the soul of America by getting in what I call good trouble, necessary trouble. Voting and participating in the democratic process are key. The vote is the most powerful nonviolent change agent you have in a democratic society.<sup>4</sup>

In honor of the late Congressman, the United States House of Representatives passed a measure to rename HR 4, initially called the Voting Rights Advancement Act, the John R.

Lewis Voting Rights Act.<sup>5</sup> The bill is a response to the US Supreme Court's 2013 decision invalidating a key part of the 1965 Voting Rights Act,<sup>6</sup> which eliminated barriers that disenfranchised African Americans, mainly in states across the South. The aforementioned commission has also put forth several recommendations for overcoming barriers to voter registration and actual voting, including same-day registration, voting preregistration for 16- and 17-year-olds, and expanded vote-by-mail options.<sup>7</sup> Neither the Lewis bill nor the commission's recommendations will be enacted before the upcoming November elections. On the contrary, rather than voter registration and ballot access being expanded, there is widespread concern that voting will be dampened by **public safety concerns** arising from the COVID-19 pandemic.

In response to this pandemic, frontline health care workers have shown up to work even at **personal risk** to themselves. For some, this commitment to care for those in need has been extended and manifested in new ways. As the pandemic has quarantined many traditional voter registration and get-out-the-vote efforts, health profession students, clinicians, and hospitals have stepped up and taken on this civic responsibility.<sup>8,9</sup> Although studies have found a link between civic engagement, such as voting, and health, it's unclear whether healthy people are just more likely to vote, whether good health is somehow a consequence of voting, or both.<sup>10</sup> Regardless of the direction of causality, there are some who think it's not the job of a physician or nurse to register patients and encourage them to vote. They don't have the training to do so, and, even if they did, they simply don't have the time, especially during a pandemic. Bringing politics into the exam room can also be seen by some patients as intrusive, and "differences with the patient or family about political matters [could] interfere with the delivery of professional care."<sup>11</sup> It could be worth noting that a 2007 study found that physicians are less likely to vote than lawyers and the general US population.<sup>12</sup>

While "bedside" consensus about clinicians' role in civic engagement is lacking, there is no denying that public policy affects the health and well-being of patients and the public at large. During this pandemic, too many among us have embodied the poor outcomes of acute public policy responses, while not enough of us have borne witness to the **disproportionate health impact** on disenfranchised communities of chronic public policy failures.<sup>13,14,15</sup> How can we afford status quo public policies that undermine social determinants of health? How do we justify trillions of dollars in annual health care expenditures in the United States (where about two-thirds is taxpayer funded<sup>16</sup>) when public health funding is woefully inadequate? How can a representative democracy survive—let alone thrive—when millions among us cannot earn a decent wage, have affordable housing, live in safe neighborhoods, or get a good education?

If we want to rebuild trust and confidence in representative democracy, those elected need to better reflect their constituencies and be more responsive to their lived concerns. To create a more responsive government, another of the commission's recommendations is to enlarge the size of the US House of Representatives.<sup>17</sup> The last time the House was expanded to its current size of 435 was in 1913.<sup>17</sup> Because the US population has grown significantly, the average House district size has increased from 280 000 to nearly 770 000 people per district between 1930 and 2020, and it's projected to reach nearly 875 000 in 2040.<sup>17</sup> In addition to the 31 recommendations issued in a June report, the commission has set a goal of 2026, our nation's 250th anniversary, to make significant progress on all its recommendations.<sup>18</sup> In light of today's social turmoil and political divisions, this goal seems like a near mission

impossible. But what choice is there? We must strive to persevere like those before us who toiled, marched, and died to better our imperfect union.

In the meantime, I call on we the people to register to vote; know our options on how to cast votes; and then exercise our right to vote by November 3. Our nation's immediate civic and public health might well depend on it.

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### FROM THE EDITOR

#### Behavioral Psychology in Medicine: The Good, the Bad, and the Unknown

Anum Fasih, MD

In 1962, economist Hawkins Stern of the Stanford Research Institute published a paper titled “The Significance of Impulse Buying Today.”<sup>1</sup> Aware of the influence of behavioral psychology on consumer habits, the William Wrigley Jr Company commissioned this seminal study in order to gain insights that would later shape strategies that vastly improved product sales.

For anyone who has ever stood at a checkout counter and wondered about the practice of placing chewing gum on it, a review of Stern’s work is highly recommended. The idea behind this strategy is that, by the time consumers reach a checkout counter, their decision-making ability has been so exhausted by the act of making choices about their other purchases that they are more vulnerable to impulsive buys, such as gum. Intriguingly, some of the concepts outlined in this piece find application not only in economics but also in medicine. For instance, the phenomenon of decision fatigue outlined above is also known to impair clinicians’ prescribing ability. One manifestation of this phenomenon is the increased likelihood that primary care clinicians will prescribe antibiotics for upper-respiratory tract infections towards the end of a clinic day as opposed to the beginning of one.<sup>2</sup>

The phenomenon of decision fatigue is but one example of many that fall under the umbrella of behavioral psychology, a field that studies the connection between the systematic tendencies in our thinking and the way that these tendencies respond to environmental stimuli and, ultimately, manifest as actions. In essence, whether conscious or subconscious, deliberate or accidental, heuristics and biases are vital factors in the everyday decision making of physicians and patients alike.

The field of behavioral psychology finds its application in behavioral design and **choice architecture**, powerful tools with which to influence the practice of health care professionals and the behaviors of patients. When choice architecture is designed to influence behavior in a predictable way but without restricting options, it is often called a *nudge*.<sup>3</sup> In September 2015, The White House issued an executive order directing federal agencies to incorporate behavioral science into their programs,<sup>4</sup> thereby establishing the formation of “nudge units” or behavioral design teams. By influencing the behaviors of citizens and government employees, these units were able to improve

outcomes in many areas, including energy conservation,<sup>5</sup> personal savings,<sup>6</sup> and completion of college financial aid applications.<sup>7</sup>

Although medicine has yet to implement behavioral psychology in a systematic or scalable way, examples of its successful application in this field are compelling. In order to **improve health care value** and outcomes and advance knowledge about how to best implement nudges, the University of Pennsylvania launched its **Penn Medicine Nudge Unit** in 2016.<sup>3</sup> After studying prescriber behavior and recognizing the power of default options in the electronic health record, this unit was able to increase prescribing rates for generic medications from 75% to 98% across all University of Pennsylvania Health System outpatient clinics during the 7-month postintervention period.<sup>8</sup> The team also studied the process by which referrals to cardiac rehabilitation were placed at the same institution, and, by changing the default system for rehab from opt-in to opt-out, was able to increase the rate of cardiac rehabilitation referrals from just 15% to an impressive 80%.<sup>3</sup> The influence of default options has also been observed in the setting of organ donation, for which countries' change from opt-in to opt-out policies has increased donation rates by 16% to 30%.<sup>9,10</sup> However, an Institute of Medicine committee recommended against changing the American organ donation policy to an opt-out system due to the concern that the conditions for adoption of an "ethical system of presumed consent" are lacking.<sup>11</sup> These examples serve to demonstrate the influential power that behavioral design possesses and the issues of ethical complexity that accompany this power.

At the intersection of medical practice and ethics, we are confronted with some compelling questions that warrant careful consideration from a behavioral psychology perspective: Do we understand the choices we are making and why we are making them? Are we working in the best interest of our patients, or are our actions decided by seemingly arbitrary factors such as the time of day or the order in which choices appear on our computer screens? Furthermore, when behavioral architecture is used to change behavior in care delivery, how can the ethical application of such interventions be ensured?

It is therefore incumbent upon those of us in health care communities to understand choice architecture and to harness it in an ethical way in order to encourage the practice of evidence-based medicine, maximize efficiency, reduce clinician burnout, improve outcomes for patients, and strengthen the patient-clinician relationship. This issue of the *AMA Journal of Ethics* addresses questions related to health care applications of behavioral architecture, key among them being whether it is **justifiable to use nudges**—to make self-determination illusory—to motivate a specific health outcome. It also explores the influence of behavioral architecture on reasoning and its role in **professional development**, as well as 10 things health professionals and patients should know about the future of behavioral design in health care.

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**CASE AND COMMENTARY**

**How Should Clinicians' Performance Be Assessed When Health Care Organizations Implement Behavioral Architecture That Generates Negative Consequences?**

Safiya Richardson, MD, MPH

**Abstract**

Behavioral interventions have been shown to have powerful effects on human behavior both outside of and within the context of health care. As organizations increasingly adopt behavioral architecture, care must be taken to consider its potential negative consequences. An evidenced-based approach is best, whereby interventions that might have a significant deleterious effect on patients' health outcomes are first tested and rigorously evaluated before being systematically rolled out. In the case of clinical decision support, brief and thorough instructions should be provided for use. Physician performance when using these systems is best measured relatively, in the context of peers with similar training. Responsibility for errors must be shared with clinical team members and system designers.

**Case**

Dr R is an internal medicine resident physician in the medical intensive care unit (MICU) who just admitted Ms M, a 60-year-old woman, for an acute exacerbation of her chronic obstructive pulmonary disease. Based on her worsening respiratory status, Dr R determines that she needs mechanical ventilatory support. Through the hospital's electronic health management system (EHMS) and computerized physician order entry system (CPOE),<sup>1</sup> Dr R automates<sup>2</sup> Ms M's pressure support settings.

Later that night, Dr R is paged. Ms M's respiratory status has deteriorated, probably due to ventilator-induced barotrauma. Despite the MICU team's implementation of full corrective and supportive measures, Ms M is pronounced dead 8 hours after being admitted to the MICU.

Reasons for Ms M's outcome are investigated by the hospital's patient safety and oversight committee. Members of the committee suspect that Dr R selected ventilator settings that were too high for Ms M. When asked to explain, Dr R admits to feeling terrible and to only now understanding that default settings,<sup>3</sup> presented by the EHMS and selected by colleagues and supervisors in past cases,<sup>1</sup> were not appropriate for Ms M.

Committee members deliberate about how to respond.

### Commentary

In this case of a physician's reliance on CPOE **default settings** leading to the death of his patient, the hospital's patient safety and oversight committee has a duty to respond in a way that will decrease the likelihood of similar events in the future. In order to decide on a productive response, they must consider the effect of the CPOE default settings on Dr R's behavior. The committee should address the following questions: (1) How do we evaluate physician performance and determine **responsibility for errors** in the context of behavioral architecture in health care? and (2) how should error events inform the design of future interventions? To address these questions, the committee must first reflect on the role of behavioral architecture in health care.

### Behavioral Architecture

Behavioral architecture refers to the intentional design of systems that consider and account for the psychological, social, cognitive, and emotional factors that influence the behavior of individuals. Many insights and tools of behavioral architecture are borrowed from the field of behavioral economics. The fundamental premise of this field is that human beings do not make decisions based purely on rational calculations designed to maximize their own good. Instead, we behave in ways that are predictably irrational.<sup>4</sup> We can use an understanding of these tendencies to develop ways to support, encourage, and “nudge” desirable behaviors. *Nudges* are behavioral science applications that consist of “positive reinforcement and indirect suggestions which have a non-forced effect on decision making.”<sup>5</sup> For example, a cafeteria encourages healthy food choices by putting fruit next to the cash register instead of candy bars.<sup>5</sup>

Health care is rapidly adopting insights from the field of behavioral economics. There is a growing body of evidence demonstrating that clinician decisions are also subject to variability based on psychological and emotional factors.<sup>6,7,8</sup> Rational approaches to improving clinician behavior, such as education, feedback, and financial incentives, have only been modestly successful. For example, these approaches generally reduce inappropriate antibiotic prescribing by 10%.<sup>9,10</sup> However, recent studies using behavioral interventions have shown exciting and promising results. For example, a large randomized controlled trial evaluating 3 behavioral interventions found that a peer comparison nudge decreased clinician antibiotic prescribing for upper respiratory infections by roughly 80% (from 19.9% to 3.7%),<sup>11</sup> with durable effects at 5 months.<sup>12</sup>

Default settings like the ones encountered by Dr R represent particularly powerful behavioral architecture tools. They take advantage of our strong desire to do nothing (status quo bias<sup>13</sup>) and implicitly recommend a particular action.<sup>5</sup> Outside of health care, default options for organ donation consent in European countries led to a 16.3% increase in organ donation.<sup>14</sup> At one US hospital, switching from opt-in to opt-out referral for cardiac rehabilitation increased referral rates from up to 15% to up to 90%.<sup>15</sup> We can expect that when a health care system puts defaults into effect, it will have a significant effect on the behavior of physicians. These effects are likely to be more pronounced for physicians in training, like Dr R, who possess less knowledge, understanding, and confidence at this stage in their careers.

### Weighing the Pros and Cons

Behavioral design is most useful in situations in which people need to make decisions that are difficult, with delayed consequences, and for which they get little or no consistent feedback.<sup>5</sup> These types of decisions are rife throughout health care. A few

times a week, a primary care physician will decide to start a patient, with no history of heart disease, on a medicine to lower their cholesterol. This decision involves a complex calculation of that patient's 10-year risk of developing heart disease. The benefit will come much later, if at all, and, as a result, the physician will get almost no feedback on the development of heart disease in such patients many years later. Even in acute care settings, clinicians often face these types of decisions. Dr R received swift feedback on his choice of ventilator settings from the patient safety and oversight committee, but, typically, this type of mistake would not generate this level of feedback. Perhaps partly for this reason, clinicians often fail to provide evidence-based care. US citizens who've seen a clinician in the past 2 years receive only half of recommended medical care,<sup>16</sup> and most physicians believe that at least 15% to 30% of the care received is unnecessary.<sup>17</sup>

In part because of the failure to follow evidenced-based guidelines,<sup>18</sup> preventable harm is responsible for a third of hospital deaths,<sup>19</sup> and it wasted up to \$425 billion in 2011.<sup>20</sup> The use of behavioral design in health systems is an exciting and low-cost way to close this evidence-practice gap without undermining the autonomy of clinicians. Studies have shown that even small and very low-cost nudges can have a meaningful impact. One study placed a simple poster with the clinician's signature committing to antibiotic stewardship in each examination room to decrease inappropriate antibiotic prescribing by 20% relative to the control group.<sup>7</sup> And simply changing the grouping of treatment options in the EHMS has been demonstrated to significantly affect physician prescribing behavior.<sup>21</sup>

As we begin to integrate behavioral psychology into health care to a greater extent, we must also consider the potential negative consequences. Some might worry that these behavioral architecture interventions undermine incentives to think critically and will usher in a new era of clinicians who are dependent on these tools. Dr R did not modify the default settings because he did not know that he needed to adjust them. Had there been no default settings, Dr R would have been prompted to think critically about how to manage Ms M. Yet the default settings arguably helped many other physicians in this MICU avoid simple input errors. These types of interventions can lead to errors and still have a net positive effect on patients.

Behavioral design also creates a challenge in **ensuring transparency**. The key insight of the field of behavioral economics has been compared to that of an optical illusion, in which our minds play tricks on us.<sup>5</sup> Normally, the human mind works incredibly well. However, there are a few instances in which it predictably fails. Behavioral design choices, or nudges, serve as a sort of cognitive illusion influencing perception below conscious awareness. This useful and powerful analogy of course begets concern. Health care systems must take responsibility for the effect of these hidden-in-plain sight interventions. For example, many academic centers now bar pharmaceutical sales representatives after studies showed that simply their presence influenced physician prescribing behavior.<sup>22</sup>

All systems incorporate a choice architecture. Health care systems should do so intentionally, by designing systems with the goal of providing the best care for as many patients as possible. To meet this goal, the net effect of system design choices should be measured in terms of patient outcomes. In this case, the committee must consider the net effect of the mechanical ventilator default settings on process and clinical outcomes.

### **Evaluating the Quality of Clinicians' Performance**

The many difficulties of accurately measuring clinician performance have been detailed elsewhere.<sup>23</sup> Putting these issues aside, health care systems must decide on the best ways to evaluate physicians in the context of behavioral architecture. I believe clinician performance should be evaluated relative to that of other physicians at their training level who are experiencing the same behavioral architecture. With a thorough understanding of the powerful impact of defaults—and how trainees in particular can be effected by them—the committee might consider that any of Dr R's peers would be subject to making the same mistake, in which case, he should not be subject to disciplinary action.

However, Nobel Laureate Richard Thaler and Cass Sunstein, the authors of *Nudge: Improving Decisions About Health, Wealth, and Happiness*, might disagree, as they refer to the application of behavioral architecture in policy as “libertarian paternalism.”<sup>5</sup> In this case, they use the word *libertarian* to mean liberty preserving. Clinicians still have a full range of options and, as such, should take complete responsibility for outcomes. The defaults encountered by Dr R could have easily been changed had he possessed the clinical knowledge to do so. The counterargument would be that though these interventions don't restrict physician choice, they do significantly impact behavior and often without conscious awareness. Because these tools have been shown to have strong effects on behavior, physicians can only be properly judged relative to their peers who have been presented with the same choice architecture.

### **Updating Foundational Principles About Clinician Responsibility**

Our instincts about physician responsibility for patient safety and well-being are based on 20th-century ethical norms. Home visits that consisted of only a patient and physician progressed to hospitalized care wherein the physician was the ultimate authority and in complete control of every aspect of patient care.<sup>24</sup> In the 21st century, the clinician is no longer the “captain of the ship,” as specialized knowledge and medical science have grown beyond the level of expertise achievable by one human being. Perhaps more importantly, medicine has become big business, as power has been transferred from physicians to complexes of medical schools and hospitals, financing and regulatory agencies, and health insurance companies. Instead of being captains of the ship, physicians are now employees and team members.

In this case, the health care team and the health system in which it functions must both share responsibility for the error that resulted in the death of Ms M. The ventilator settings placed by Dr R should have been checked by a fellow or attending physician overseeing the MICU during that shift. Dr R did not have the proper level of supervision and, as such, his senior deserves some responsibility for the error. The health care system likely deserves some responsibility as well. The CPOE system likely did not include clear instructions for use. Without these, it would not be unreasonable for a trainee to assume that the default settings should have been used for Ms M. Appropriately distributing responsibility for patient care to all members of the health care team encourages each member to provide the best care. In the case of process interventions, like the CPOE tool in this case and in clinical decision support generally, we must insist that these tools not only be well intentioned but also be proven effective in pragmatic trials.

### **Developing Future Behavioral Interventions and Clinical Decision Support**

The vast majority of clinical decision support tools integrated into EHMS across the country have not been proven to either help or reliably not harm patients, as most



evaluations of quality come from just a few institutions across the country.<sup>25</sup> Our approach as a nation to integrating EHMS and all of their components has been to develop and deploy tools that simply make intuitive sense. We are just beginning to discover and describe the unforeseen negative consequences of this approach.<sup>26,27,28</sup> Western medicine was revolutionized with the advent and spread of the concept of **evidenced-based medicine** in the 1980s. The premise was simple: deemphasize intuition, clinical experience, and pathophysiological rationale in favor of hard scientific evidence.<sup>29</sup> This concept has not been applied to the development of EHMS and clinical decision support. Many of the tools in these systems are included simply because they made intuitive sense to the designers. There must always be some intelligent balance between our use of intuition and objective evidence to make decisions. In this case, the health care system that launched the default CPOE should have gathered more evidence about its effects before launching it in this high-risk clinical setting.

The committee can consider 2 recommendations that might decrease the likelihood of similar events in the future. First, an evidenced-based approach should be taken for behavioral interventions that might significantly and negatively impact a patient's health. For example, before a default system like this one is launched in the MICU, the hospital might first conduct a small pragmatic trial of a similar tool in a low-stakes clinical situation. With the knowledge and understanding gained from that study, developers might build a better CPOE tool for the MICU. Ideally, this new tool would be launched on a small scale and its effects closely monitored before permanent full-scale integration. Second, it is imperative that clinicians understand the basis of recommendations generated by the CPOE tool and how it should be used. Particularly relevant for clinical decision support, the 21st Century Cures Act requires that health care professionals be able to independently review the basis of recommendations of decision support systems.<sup>30</sup> Brief and thorough instructions for use should be provided to empower the clinician to use the tool to best care for each individual patient. Building added transparency into the development of future interventions should reduce the likelihood of negative events.

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**CASE AND COMMENTARY**

**Is It Justifiable to Make Self-Determination Illusory to Motivate a Specific Health Outcome?**

Michael P. Kelly, PhD, MPhil

**Abstract**

A *nudge* is an intervention designed to prompt people to “voluntarily” make the choice intended by those who altered the choice environment or situation, and therefore using nudges is thought to undermine self-determination. Evidence for this assumption is weak, however, and sets aside much of what we know about human conduct sociologically. This paper argues that the practical consciousness that people have about their own actions and reasons for executing those actions can inform our thinking about motivating compliance with treatments in clinical settings and the ethical issues involved.

**Case**

Mr H is a 58-year-old man with insulin-dependent diabetes, hypertension, and class II obesity (with a BMI of 35 kg/m<sup>2</sup>). Mr H sees Dr K today after a 6-month trial of lifestyle changes to lose weight because he wasn't interested in taking anti-obesity medications. As Mr H has told Dr K in the past, “I am already on too many medications for my sugar and blood pressure.” Evaluation reveals that Mr H's BMI has increased since the last visit, and Dr K is increasingly concerned, given Mr H's strong family history of coronary artery disease. Recalling that Mr H is afraid of bariatric surgery, Dr K considers reiterating the risk of death and a drawn-out recovery period as Mr H's most feared drawbacks of surgery in order to prompt Mr H to agree to taking anti-obesity medication.<sup>1,2,3</sup>

**Commentary**

In the above case, by spelling out the risks of surgery, Dr K would be reinforcing the fears that Mr H has already. The purpose is to encourage (ie, to *nudge*<sup>4</sup>) Mr H to do something voluntarily, which he has previously been reluctant to do—to take anti-obesity medication. We might ask whether it is ethically justifiable to manipulate self-determination in this way in order to motivate a specific health outcome. Is Mr H being manipulated if he decides voluntarily to take his medication? While this question appears to raise ethical concerns about Mr H's self-determination being undermined, posing the question in this way is to assume that self-determination is the most—or a very important—component of human behavior. To make this assumption is to set aside much of what we know and have known for a long time sociologically about human

conduct. It is therefore an illusion. To assume that we have the evidence to manipulate self-determination effectively is also an illusion. I explain why both of these assumptions are illusory by considering, with reference to the case, the values informing the clinical consultation, the use of fear as a means of getting a patient to change his or her behavior, the patient's capacities and capabilities in the physician-patient relationship, evidence of the effectiveness of behavior change interventions, and a sociological view of human conduct.

### **Value Neutrality Is Impossible, but Framing Is All-Important**

Value neutrality is a fiction.<sup>5,6</sup> Framing is not.<sup>7</sup> There is strong evidence that how decisions are framed has real consequences for behavior.<sup>8</sup> Since framing is one expression of values and values are intrinsic to human behavior, one cannot exclude values from how we think about human conduct. Values are key sources of meaning in human activity.<sup>9</sup> Humans make sense of things with reference to values. Clinicians' desire to do their very best for patients is a value. But patients bring their values to the consultation, too, and patients sometimes hold different values than their doctor. In this case, the patient values the absence of risk. He is convinced that he is already taking too much medication. The doctor values the ethical principle of beneficence and is thinking about nudging the patient toward anti-obesity medication as the preferred treatment. However, nudges are not value neutral.

Seeking to be value neutral is impossible. Instead, we should strive to make our values clear to ourselves and to others and, indeed, clinicians should strive to help patients articulate their own values. The goal is not to change values, although getting things into the open could be a forum for allowing reconsideration of a value position. Rather, **articulating values** reinforces that values are an intrinsic part of the human condition, not something to be disinfected from human life. In our case, instead of trying to nudge the patient toward anti-obesity medication, Dr K could have tried to find a way to accommodate the patient's values while at the same time still providing the best care possible. I elaborate below.

### **Using Fear vs Building Capacity**

Dr K is thinking about emphasizing the risks that Mr H fears, but fear is only a partially effective way to get people to change their minds or behavior.<sup>10</sup> Its effects tend to be short-term.<sup>11</sup> Telling people about dangers and dire consequences sometimes makes them receptive to change. However, if inducing fear is to have traction in the long run, patients will need the skills to deal with the threat being described.<sup>12</sup> Unless there are ways and means for patients to change their beliefs or behaviors, then all that will happen is that their anxiety levels will be heightened. They might also reject or deny the threat.<sup>13</sup> Only if the threat fundamentally changes the meanings held by the patient—and it usually doesn't—will it work. In our case, raising Mr H's level of anxiety is unlikely to make him change his mind about treatment or make him more likely to take the anti-obesity medication. The most probable outcome is simply to make Mr H more worried.

A better approach than manipulating the patient's fears is to ask what capacities, capabilities, or assets the patient brings to the situation.<sup>14,15</sup> This approach involves learning what abilities, skills, and resources the patient uses both to realize broad life goals and ambitions and to manage day-to-day existence. Clinicians need to consider whether there is anything in the relationship that impedes the patient realizing his or her own capabilities and the extent to which these impediments make the alignment of patient and therapeutic goals difficult. Humans have reasons for their actions, even if



these are implicit, and most people are more than able to articulate them. Such tacit knowledge or practical consciousness is what they use to navigate the world.<sup>16</sup> It provides their motives for future actions, explanations of past behavior of themselves and others, and a vocabulary that helps furnish a narrative about themselves.<sup>17</sup> In this case, understanding—if not agreeing—with the patient is a first step toward therapeutic possibilities. Therefore, the initial task is for Dr K to explore the reasons why Mr H is fearful of surgery—by, for example, discussing his understanding of risk. Similarly, Dr K's talking through the consequences of adding another medication and the reasons why Mr H is opposed would be a beginning.

### **Evidence of Behavior Change Interventions**

Behavioral change interventions have the capacity to do harm as well as good. In the face of a lack of reliable evidence about effectiveness of a particular intervention or model, a physician employing such an intervention has no guarantee that good will follow from whatever action is taken.<sup>18</sup> Importantly, the assumption that **behavioral change interventions**, such as nudge, will reliably or predictably produce the desired result is at present scientifically unjustified.<sup>19</sup> The current state of psychological science is not such that simple, precise predictions of complex behaviors are possible.<sup>20</sup> Unproven interventions, for which we know little of the mechanisms of action, the effective dose—and even less about the individual response variations from patient to patient—have the potential to be bad medicine.<sup>21</sup> The lack of evidence sometimes renders the whole idea of behavioral interventions ethically dubious. This approach is premised on the idea that behavior is something that resides in an individual and that is prompted by various external stimuli. Social life is not like that. It is not “a set of individual behaviours enacted by discrete individuals”; rather, it consists of “interconnected sets of activities which groups do” in concert with each other in interlinked *lifeworlds*, or communities of practice.<sup>22</sup>

A helpful way to think about social life derives from social practice,<sup>23</sup> structuration,<sup>24</sup> phenomenological,<sup>25</sup> and symbolic interaction<sup>26</sup> theories. Together, these provide a very useful way of understanding the medical consultation and of elucidating the ethical issues involved. The conception of social life derived from these sources is as follows. Humans are volitional creatures with a sense that they make decisions about what they think, feel, and do. They have a sense of self. This is their sense of who and what they are, being a unique individual separate from others, and what their place in the world is.<sup>27</sup> However, this sense of self and the sense of self-determination that goes with it are at least partly illusory. This is because some behavior is automatic<sup>28</sup> and because individuals are enmeshed in relationships with others. Their sense of self, including their sense of their unique individuality, arises from and is created in these relationships.

### **Individual Actions in Social Context**

Out of the many individual actions people execute, social patterns arise. These include the patterns seen in patient-clinician consultations. Humans are surrounded by these structured social patterns that constrain and facilitate individual actions. The individual is in a constant process of interaction with social structures. Those structures arise from individual actions but are also the very things that constrain them. This is why human life both constantly changes and, at the same time, has a repetitive, recursive, and predictable quality. In other words, to understand human conduct—be it of a doctor or a patient or anybody else—we must not conceptualize it as something reducible to atomistic actions that are controlled, propelled, or driven by others acting in an equally individualistic way.

To analyze clinical consultations, the values and meanings held by the participants in the relationship need to be made clear—and clear to all parties involved. Behavior is not a matter of the application of a rational calculus—values intervene. So, too, do the competencies and practical knowledge that people bring to situations. The evidence does not support the idea that specific interventions produce predictable outcomes. Rather, behavior is an emergent property of relationships between people. The ethical issues involved in the case are rather different, I argue, than would first appear.

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**MEDICAL EDUCATION**

**Believing in Overcoming Cognitive Biases**

Tiffany S. Doherty, PhD and Aaron E. Carroll, MD, MS

**Abstract**

Like all humans, health professionals are subject to cognitive biases that can render diagnoses and treatment decisions vulnerable to error. Learning effective debiasing strategies and cultivating awareness of confirmation, anchoring, and outcomes biases and the affect heuristic, among others, and their effects on clinical decision making should be prioritized in all stages of education.

**Introduction**

Cognitive biases contribute significantly to diagnostic and treatment errors.<sup>1,2</sup> A 2016 review of their roles in decision making lists 4 domains of concern for physicians: gathering and interpreting evidence, taking action, and evaluating decisions.<sup>3</sup> Although experts have identified many different **types of cognitive biases**, specific examples from these domains include confirmation bias, anchoring bias, the affect heuristic, and outcomes bias. In this article, we first discuss these biases, how they **affect medical decision making**, and how cognitive psychology helps to inform effective debiasing strategies. We then discuss specific debiasing strategies and how to integrate them into education.

**Examples of Cognitive Biases**

*Confirmation bias* is the selective gathering and interpretation of evidence consistent with current beliefs and the neglect of evidence that contradicts them.<sup>4</sup> It can occur when a physician refuses to consider alternative diagnoses once an initial diagnosis has been established, despite contradicting data, such as lab results. This bias leads physicians to see what they want to see. Since it occurs early in the treatment pathway, confirmation bias can lead to mistaken diagnoses being passed on to and accepted by other clinicians without their validity being questioned, a process referred to as diagnostic momentum.<sup>5</sup>

*Anchoring bias* is closely related to confirmation bias and comes into play when interpreting evidence. It refers to physicians' practices of prioritizing information and data that support their initial impressions, even when first impressions are wrong. It often manifests when the first piece of information given to a physician is relied upon too heavily when making decisions.<sup>3</sup> For example, a patient's back pain might be attributed to known osteoporosis without ruling out other potential causes.



When physicians move from deliberation to action, they are sometimes swayed by emotional reactions rather than rational deliberation about risks and benefits. This is called the *affect heuristic*, and, while heuristics can often serve as efficient approaches to problem solving, they can sometimes lead to bias.<sup>3</sup> The affect heuristic is context or patient specific and can manifest when physicians label patients as “complainers” or when they experience positive or **negative feelings toward a patient**, based on prior experiences.<sup>6</sup>

Further down the treatment pathway, *outcomes bias* can come into play. This bias refers to the practice of believing that good or bad results are always attributable to prior decisions, even when there is no valid reason to do so.<sup>3</sup> Feedback on clinical decisions is critical for identifying weaknesses or potential mistakes, so this type of bias can prevent clinicians from taking into account appropriate feedback to improve future performance. Although the relation between decisions and outcomes might seem intuitive, the outcome of a decision cannot be the sole determinant of its quality; that is, sometimes a good outcome can happen despite a poor clinical decision, and vice versa.

### **Metacognition and Clinical Decision Making**

We can help mitigate failures of clinical reasoning by helping physicians and trainees cultivate insight into their own thinking processes. The dual-process theory, a cognitive model of reasoning, can be particularly relevant in matters of clinical decision making.<sup>7,8</sup> This theory is based on the argument that we use 2 different cognitive systems, intuitive and analytical, when reasoning. The former is quick and uses information that is readily available; the latter is slower and more deliberate.

We more commonly use intuitive thinking strategies because they are fast and reasonably effective. For example, intuitive thinking would likely lead to a flu diagnosis for a patient presenting with fever, fatigue, and joint pain during winter months. However, compared with analytical thinking strategies, intuitive strategies are much more prone to error. For example, jumping to a diagnosis of influenza might cause one to neglect to investigate other diagnoses for that patient (eg, meningococcal meningitis) because it's flu season. Intuitive strategies benefit from experience and are necessary in situations in which time and information are lacking (eg, in emergency rooms). These strategies rely on heuristics, or mental shortcuts that are generally sufficient, but not guaranteed, to lead to the right answer. In contrast, analytical strategies require more time and resources but allow the use of deductive logic to reach a diagnostic or treatment decision that is less subject to external factors (eg, previous experience, test availability).<sup>9</sup> Effective debiasing strategies mainly involve a deliberate switch between these 2 types of thinking.

Consideration should be given to the difficulty physicians face in employing analytical thinking exclusively. Beyond constraints of time, information, and resources, many physicians are also likely to be sleep deprived, work in an environment full of distractions, and be required to respond quickly while managing heavy cognitive loads.<sup>10</sup> These are working conditions in which analytical thinking strategies are difficult to apply, especially given that they require the cooperation of brain structures that suffer greatly from sleep deprivation.<sup>11,12</sup> In such conditions, many physicians default to intuition. However, change is not impossible.

### **Potential Debiasing Strategies**

Pat Croskerry, an expert in clinical decision making, suggests that 3 things must occur in order for improvement in bias-related diagnostic and treatment errors to happen: (1) physicians must fully appreciate the contribution of cognitive biases to errors in medical decision making, (2) they must recognize that such errors are not inevitable, and (3) they must be optimistic that solutions to reduce bias work.<sup>1</sup>

Simply increasing physicians' familiarity with the many types of cognitive biases—and how to avoid them—may be one of the best strategies to decrease bias-related errors.<sup>1</sup> Thus, education for medical students, residents, and fellows could fruitfully invest in training on cognitive biases, the role they play in diagnostic and treatment errors, and effective debiasing strategies. Two such strategies will be discussed below.

The practice of reflection reinforces behaviors that reduce bias in complex situations. A 2016 systematic review of cognitive intervention studies found that guided reflection interventions were associated with the most consistent success in improving diagnostic reasoning.<sup>13</sup> A guided reflection intervention involves searching for and being open to alternative diagnoses and willingness to engage in thoughtful and effortful reasoning and reflection on one's own conclusions, all with supportive feedback or challenge from a mentor.<sup>14</sup>

The same review suggests that cognitive forcing strategies may also have some success in improving diagnostic outcomes.<sup>13,15</sup> These strategies involve conscious consideration of alternative diagnoses other than those that come intuitively. One example involves reading radiographs in the emergency department. According to studies, a common pitfall among inexperienced clinicians in such a situation is to call off the search once a positive finding has been noticed, which often leads to other abnormalities (eg, second fractures) being overlooked. Thus, the forcing strategy in this situation would be to continue a search even after an initial fracture has been detected.<sup>15</sup>

While some data suggest that cognitive forcing strategies are not successful in reducing students' diagnostic errors,<sup>16,17</sup> a systematic review reveals that they can be efficacious in specific circumstances (eg, telling participants to consider alternative diagnoses rather than to be aware of misleading details).<sup>13</sup> Overall, more research is needed to understand how other factors (eg, study setting, participant experience or knowledge level, bias or strategy introduction) influence cognitive forcing strategies' effectiveness.

Using guided reflection and cognitive forcing strategies, medical trainees at all stages can be taught to acknowledge the risk of potential biases during decision making and then to deliberately counteract those potential biases. It is thought that, given time and sustained practice, certain metacognitive strategies can become second nature to physicians.<sup>15</sup>

### **Delivery Formats in Health Professions**

In terms of format, cognitive tutoring systems may be useful. A 2013 study investigated the ability of a computer-based system, which involved virtual slides and a diagnostic reasoning interface, to detect and measure heuristics and biases in pathologists at different levels of training.<sup>18</sup> The authors reported that biases and their association with diagnostic errors were successfully detected using this virtual slide system, suggesting that such a system could be used in the future to test methods for decreasing bias-related errors.

Another potentially useful format is simulation. A 2004 study with residents simulated a case with a difficult diagnosis and a cognitive error trap.<sup>19</sup> Afterwards, the resident physicians were debriefed on both case-specific details and on cognitive forcing strategies, interviewed, and asked to complete a written survey. The results suggested that resident physicians further along in their training (ie, postgraduate year three) gained more awareness of cognitive strategies than resident physicians in earlier years of training, suggesting that this tool could be more useful after a certain level of training has been completed. Future research should assess whether strategies learned from such simulations are applied later in bias-prone medical decisions.

Training formats such as workshops or seminars might also be effective formats. A 60-minute workshop was conducted at the 2017 meeting of the Society for Academic Emergency Medicine that consisted of brief instruction on cognitive biases and debiasing strategies. The workshop significantly improved recognition of bias and application of debiasing strategies.<sup>20</sup> Although this intervention seems promising, future studies should examine the effects of such workshops using measures less subjective than self-assessment.

A seminar conducted at Wright State University with medical students and internal medicine resident physicians focused on cognitive bias in medical decision making using an objective method of assessment.<sup>21</sup> There is evidence that participation in the seminar improved scores on the Inventory of Cognitive Biases in Medicine (ICBM), an instrument used to detect the impact of such biases on analytical thinking.<sup>22</sup> It is important to note that the validity of the ICBM has since been questioned.<sup>23</sup> Reliable measurement tools will be critical to implementing effective educational measures.

Alternatively, or perhaps in addition to the aforementioned formats, education on cognitive biases and debiasing strategies could be delivered in longer formats. A 2013 study examined the effect of a 3-part, 1-year curriculum on recognition and knowledge of cognitive biases and debiasing strategies in second-year residents.<sup>24</sup> Those who completed the entire curriculum not only improved on their precurriculum scores but also performed better than third-year resident physicians who had not completed the curriculum.

### **Conclusion**

Cognitive biases in clinical practice have a significant impact on care, often in negative ways. They sometimes manifest as physicians seeing what they want to see rather than what is actually there. Or they come into play when physicians make snap decisions and then prioritize evidence that supports their conclusions, as opposed to drawing conclusions from evidence. Sometimes physicians' previous experiences can lead them astray. And, if outcomes are falsely attributed to decisions or actions, critical feedback opportunities are lost and bad habits can become ingrained.

Fortunately, cognitive psychology provides insight into how to prevent biases. Guided reflection and cognitive forcing strategies deflect bias through close examination of our own thinking processes. Although more research is required, data suggest that these strategies can be successful in the right circumstances. If they are to work, we must consistently include them in medical curricula. During medical education and consistently thereafter, we must provide physicians with a full appreciation of the cost of biases and the potential benefits of combatting them.

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**HEALTH LAW**

**Why Accountability Sharing in Health Care Organizational Cultures Means Patients Are Probably Safer**

Deborah M. Eng, MS, MA and Scott J. Schweikart, JD, MBE

**Abstract**

Because human errors should be regarded as expected events, health care organizations should routinize processes aimed at human error prevention, limit negative consequences when human errors do occur, and support and educate those who have erred. A just culture perspective suggests that responding punitively to those who err should be reserved for those who have willfully and irremediably caused harm, because punishment creates blame-based workplace cultures that deter error reporting, which makes patients less safe.

**A Case of One Kind of Medication Error**

Despite their best conscientious efforts, physicians and other health care clinicians will inevitably make mistakes by omission, commission, or simply as a result of human nature and imperfections of work environments. A recent case from Tennessee highlights an example of medication error and can serve as the basis of an analysis of accountability in health care. The facts of the case are as follows: due to claustrophobia, an elderly patient who was anxious about a scheduled positron emission tomography (PET) scan was prescribed midazolam hydrochloride to help her feel more at ease.<sup>1</sup> This patient's nurse proceeded to retrieve the drug from an automatic dispensing cabinet. The dispenser's override feature enabled the nurse to select the first drug result displayed,<sup>1</sup> dismiss a series of 5 pop-up warnings, and withdraw the selected (wrong) drug—a paralyzing agent—from the cabinet.<sup>2</sup> The nurse removed a vial labeled with a paralysis warning from the cabinet dispenser, delivered it to the radiology department where the patient's PET scan was about to occur, and administered the drug to the patient via injection as directed. Thirty minutes later, the patient was found in cardiac arrest. Although the patient was resuscitated and transferred to an intensive care unit, clinicians deemed the patient unlikely to recover and the patient's family agreed another resuscitation attempt would not be appropriate. The patient was extubated and died shortly thereafter.<sup>1</sup>

**Codes and Cultures**

When analyzing this case of medication error, 2 organizations' codes of ethics can be drawn on to illuminate key features of **organizational cultures** in health care that inform what might be an appropriate response. For example, *The Code of Ethics for Nurses*

states: “[W]hile ensuring that nurses are held accountable for individual practice, errors should be corrected or remediated, and disciplinary action taken only if warranted.”<sup>3</sup> Responding punitively to nurses who err, such as terminating their employment or charging them criminally, might not be warranted because the American Nurses Association believes that “[C]riminalization of medical errors could have a chilling effect on reporting and process improvement.”<sup>4</sup>

The American Medical Association’s *Code of Medical Ethics* Opinion 8.6, “Promoting Patient Safety,” emphasizes both individual and collective **accountability for errors**. Physicians, who are “uniquely positioned to have a comprehensive view of the care patients receive,” should “strive to ensure patient safety” and additionally “play a central role in identifying, reducing, and preventing medical errors.”<sup>5</sup> Opinion 8.6 further states: “Both as individuals and collectively as a profession, physicians should support a positive culture of patient safety, including compassion for peers who have been involved in a medical error.”<sup>5</sup>

Each of these organizations’ code statements underscores the importance of viewing any clinician action, including an error, in light of the social and cultural context in which that action was carried out.

### **Just Culture**

*Just culture* offers a model for creating positive workplaces in health care settings<sup>6,7</sup> by balancing “the need for an open and honest reporting environment with the end of a quality learning environment and culture.”<sup>7</sup> Its premises echo conclusions from the Institute of Medicine’s 1999 report, *To Err is Human: Building a Safer Health System*,<sup>8</sup> which found that most medical errors arise from “faulty systems, processes, and conditions that lead people to make mistakes or fail to prevent them” rather than from reckless actions by individuals working within those systems.<sup>9</sup> As a result, the just culture model serves as a guide for health care systems and institutions by incorporating elements such as human factor design, error prevention, and steps to contain errors’ consequences before they become critical. Its goals are to create a fair and open environment to promote learning, support the design and implementation of safety systems, and guide behavioral choices.

Although a just culture framework views adverse outcome events as opportunities to understand any contributing risks and how to mitigate them, it is not blame free. A just culture framework endeavors to balance 3 basic duties—to avoid causing unjustified risk or harm, to produce desired outcomes, and to follow procedural rules—against shared organizational and individual values of dignity, safety, equity, cost, and effectiveness.<sup>6,7</sup> Under the just culture framework, medical mistakes, such as medication errors, can be classified as simple human error (eg, unintentional errors or lapses), as risky behaviors (ie, “a conscious drift” toward actions in which the risks taken are unforeseen or mistakenly believed to be justified), or as recklessness, defined as willful disregard of unjustified risks.<sup>7</sup> Recommended remedies for these mistakes are, respectively, consolation, coaching to understand risks, and punishment, where corrective responses are based upon clinician behaviors rather than patient outcomes.<sup>7</sup>

### **Cultures Compared**

Just culture and law enforcement both aim to prevent harm to persons or patients, property, and public interests. Just culture emphasizes the quality or desirability of an individual’s choices and behaviors and apportions corrective actions or discipline on

that basis more so than on the severity of the consequences. Criminal law, on the other hand, often focuses on outcomes, and while the law “generally disallow[s] criminal punishment for careless conduct, absent proof of gross negligence” (ie, a heightened level of negligence that may include recklessness), some “legislatures occasionally permit punishment based on ordinary negligence, primarily when the conduct is extremely dangerous and may cause harm to a significant number of people.”<sup>10</sup> Just culture also attempts to differentiate degrees of intent or blame more finely than the law does. These gradations range from ordinary human error at the low end of culpability, to risky behaviors, recklessness, and, finally, purposeful action to inflict harm.<sup>7,11</sup> Criminal law often creates a “twilight zone” in its vague interpretation of the various degrees of negligence, ie, “willful,” “wanton,” “reckless,” and “gross” negligence, which may encompass “recklessness.”<sup>12</sup> In a just culture model, negligence encompasses both unintentional errors (accidents) and risky behavior (decisions) but not recklessness.<sup>11</sup> Instead of imposing punishments for all categories of failures of duty, just culture advocates acceptance and support for errors, coaching to change risky behaviors, and discipline or punishment for those whose actions are reckless because they were committed with knowledge of harm or with purposeful intent to harm.<sup>7</sup>

Returning to the case example of medication error, those espousing a just culture perspective might observe that the nurse chose to override orders and warnings from the drug cabinet and that she neglected to confirm the drug, record the injection, and monitor the patient. However, the patient’s death, though tragic, was unintended. Although the nurse’s mistakes may have been numerous, they began with a human error of selecting the wrong medication. As a result, the nurse’s culpability could be construed as being low (simple error or risky behavior), and the corresponding remedies would be support and education rather than criminal prosecution. In this vein, some might argue that her choices and her awareness of risk, not the outcome, should be the crucial determinants of the correct response. She would not be considered reckless if she was not cognizant of risks. Her attention might have been drawn elsewhere—to her trainee, for example.

Or, she might have been enculturated into daily workplace practices of using the override functions without fully appreciating the potential hazards, reflecting the human tendency to drift away from stringent adherence to standards. Just culture would consider this behavior risky but natural.<sup>11</sup> David Marx describes this “propensity to drift into at-risk behaviors” using an automotive example in which one driver is driving 9 miles per hour over the speed limit, while another driver may be driving 50 miles per hour over the speed limit and swerving wildly. The first driver is “drifting,” not consciously aware of the risk, whereas the second driver is clearly driving with conscience knowledge of his or her recklessness.<sup>11</sup> Because the just culture model views “the propensity to drift” as “part of our human nature,” mitigating at-risk behavior caused by “drifting” should be the focus in designing hospital patient safety programs.<sup>11</sup> Under a just culture model, punishment of the nurse in this case would erode confidence and trust among coworkers and institutions and deter open **disclosure and discussion** of mistakes made.

By contrast, those adopting a “finger pointing” stance (eg, one that might arise under criminal law) might argue that the nurse’s actions were indeed criminally reckless rather than merely erroneous. Her actions could be akin to those of a driver who is texting or speeding and strikes a passerby, killing him or her; both the driver’s and the nurse’s

actions were choices rather than mere errors, and the consequences were foreseeable and preventable.

### Conclusion

The goal of minimizing mistakes, including human errors, is aided by culture and organizations that foster communication and education and punish only when warranted. A just culture model proposes that individuals working within a system should not be held responsible for mistakes or choices they make if that system fails to prevent foreseeable errors; rather, health systems and institutions should positively guide anticipated interactions and actively participate in monitoring, reporting, and fixing shortcomings to improve patient safety.

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### **POLICY FORUM: PEER-REVIEWED ARTICLE**

#### **Sharing Ethics Consultation Notes With Patients Through Online Portals**

Dominic R. Mangino, MS and Marion Danis, MD

##### **Abstract**

Many health systems have adopted online patient portals that allow patients to easily view their health records. As a result, notes written by health care professionals are increasingly read by both clinicians and patients, and clinicians in specialties that routinely involve sensitive information (eg, mental health care) have had to construct notes in a manner that respectfully promotes therapeutic relationships with patients. This article discusses whether ethics consultation services should share notes with patients through online portals and ways to handle practical implementation challenges. In support of sharing notes, this article appeals to an existing right that patients have to access their health record and suggests that sharing ethics consultation notes might help patients understand key clinical ethics concepts and practices.

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##### **Introduction**

Patient portals are online websites that give patients convenient and secure access to their personal health information<sup>1</sup> and are available in an expanding number of medical practices.<sup>2</sup> Portals frequently include summaries of doctor visits, medication information, and **lab results**; some allow patients to access in-patient progress notes, send messages to physicians, schedule appointments, and make online payments. Some institutions, including the National Institutes of Health Clinical Center, have begun sharing ethics consultation notes with patients.<sup>3</sup> Given these developments, increased discussion of the benefits and burdens of sharing ethics consultation notes is needed. In the remainder of this article, we describe the movement to increase patient access to health records through online portals and argue why consultation services should embrace it. In particular, we articulate 2 benefits of increased patient access. First, providing patients access to some of their ethics consultation notes through online portals would facilitate patients' exercise of an existing, but currently underutilized,<sup>4,5</sup> right to access their health records. Second, easily accessible and understandable



ethics consultation notes might help patients appreciate the ethical concepts that are meant to guide clinical practice. Finally, we describe a few ways to meet practical implementation challenges.

### **Current Documentation and Sharing Practices**

Currently, most ethics consultation services document notes in internal service records and in patients' **electronic health records** (EHRs).<sup>6,7</sup> The amount of detail placed in the HR varies; one prominent model<sup>7</sup> recommends documenting detailed notes in the service's internal records and concise notes (summary analysis and recommendations) in the EHR.<sup>7</sup> Patients have a right to access information in the EHR but not in internal service records. However, few patients access information in the EHR because of practical challenges in requesting these records.<sup>4,5</sup>

As the use of patient portals has become more prevalent, OpenNotes, an international movement committed to encouraging the use and studying the effects of patient portals, has developed.<sup>8</sup> The movement has grown quickly since its inception in 2010 following a landmark study involving roughly 25 000 patients.<sup>9,10</sup> That study revealed that most patients who accessed notes through a patient portal reported better understanding of their condition, improved self-care, increased medication adherence, and increased feelings of control over their care.<sup>9,10</sup> Physicians also experienced benefits, most commonly citing strengthened relationships with their patients, and most reported no difficulties in their practice.<sup>10</sup> Since that time, a growing body of evidence supports sharing notes with patients to improve patient engagement,<sup>11,12,13,14,15</sup> enhance patient safety,<sup>16,17,18</sup> and foster trusting relationships and **shared decision making**.<sup>19,20,21,22</sup>

### **Ethics Consultation Services Should Share Consultation Notes**

Although clinicians increasingly share EHR notes through the portal,<sup>23</sup> there has been little discussion of whether ethics consultation services should do the same. One strong reason for doing so is to promote patients' existing rights. Indeed, patients have a legal right to access their EHR,<sup>24</sup> although some might be unaware of this right<sup>25</sup> or might find the requesting processes burdensome,<sup>4,5</sup> making access difficult. Thus, including ethics consultation notes in online portals would promote the exercise of an existing right—one recently emphasized in the 21st Century Cures Act.<sup>26</sup>

Embracing this increased transparency could also benefit patients and ethics consultation services in other ways. First, it would inform patients of the role of ethics consultations, thereby helping them understand key concepts of clinical ethics. For example, a note that explicitly lays out value trade-offs between aggressive and palliative treatment options might help patients and their families understand and appreciate deliberation about goals of care, the process of balancing the benefits and burdens of treatment options, and the resolution of disagreements due to different perspectives and opinions. A note like this could be beneficial during an acute illness in the intensive care unit or when a patient with a chronic disease enters the terminal phase of the condition. Sharing notes could also dispel patient misconceptions about ethics consultation services (eg, that they take over the decision-making function<sup>27</sup>).

Some might question whether regularly sharing ethics consultation notes would on balance be beneficial, given that ethics consultations frequently involve vulnerable patients and families, distressed clinicians, and sensitive information.<sup>28</sup> Members of other specialties, particularly adolescent health<sup>29</sup> and **mental health care**,<sup>30</sup> have expressed similar concerns related to maintaining **patient privacy** and preserving

therapeutic relationships. For instance, a recent study found that a small percentage of patients report worrying more, feeling judged, or experiencing other discomfort after reading their psychotherapy notes online.<sup>31</sup> Although concerns about regularly sharing ethics consultation notes are justified, we maintain that they should not prevent sharing notes entirely. Instead, they should motivate the development of best practices for minimizing harms and policies to guide decisions about selectively including notes in the EHR or patient portal.

### **Suggestions for Documentation in the Patient Portal**

When documenting notes in patient portals, ethics consultation services will need to decide upon which kinds of and how much information should be shared. We suggest that the patient portal should, as a rule, match the EHR note in both type and volume of information, although we note 2 exceptions in which omitting notes from the portal or sharing summary versions of notes in the portal might be appropriate. And, on occasion, omitting notes from both the EHR and the portal might be advisable. (See [Supplementary Appendix Table](#) for examples.)

First, a note might be inappropriate for the portal because the ethics consultation doesn't relate to the patient's care. For instance, hospital policy questions wherein no patient is named are obviously excluded. Whether a similar policy question should be excluded if it arises within the context of a particular patient's care is less clear. Hospitals and consultation services must therefore develop criteria to define when an ethics consultation properly relates to the care of a patient such that it is appropriate for inclusion in the portal.

Second, a note might be inappropriate for the portal because it undermines recommendations provided or is potentially harmful to patients. For example, if a consultation involves discussion of whether to disclose information to a patient or their surrogate decision maker and disclosure is considered inadvisable, then the note should be omitted from the portal. Consultants could designate the note as "hidden" from patients and require justification for its being viewed by other clinicians, similar to the practices of clinicians documenting psychotherapy notes.<sup>30</sup> In other cases, it might be advisable to share only some aspects of the consult with patients. For instance, an interdisciplinary ethics consultation may be requested to craft a plan to assist clinicians in handling challenging patient encounters and inappropriate behaviors. The ethics consultant's report could include several observations or recommendations, some of which might be constructive for both clinicians and patients to read, others of which might offend or unnecessarily exacerbate existing tensions if the patient reads them. In these cases, 2 versions of a consultation note could be authored: a comprehensive note in the EHR aimed at relevant clinicians and a summary note in the portal geared toward patients.<sup>29</sup> This option promotes effective communication between clinicians and patients in a way that omitting a note from the EHR or portal would not. One drawback to this strategy is that it would increase consultants' documentation burden and could be confusing to clinicians.

Defining the maximum burden that is acceptable if notes are included in the portal—which serves as a threshold for omitting notes from the portal—will vary. The maximum burden from inclusion of notes should be greater than mere clinician discomfort, but the threshold should not be so high that potential requestors hesitate to request ethics consultations. For example, if the expected burden of including notes in the portal is very high, some clinicians might be more hesitant to request future consultations.<sup>32</sup>

Well-established consultation services might use higher thresholds for withholding notes compared to services still building trust among clinicians, which might adopt lower thresholds. Individual decisions to withhold notes would likely depend heavily on individual consultants' prudential judgment and guidance from institutional policies.

### **Practical Documentation Strategies**

In cases in which ethics consultation notes will be made available in the patient portal, consultants can mitigate potential challenges by adapting guidance from clinicians with experience sharing notes<sup>29,31,33,34,35</sup> and by taking certain precautionary steps before, during, and after documentation.

Before documenting notes, consultants should generally notify the patient of the consultation's initiation (preferably in person) and involve them whenever possible. Although this procedure is part of existing professional recommendations,<sup>27,28</sup> it is newly salient when sharing notes with patients. Making patients aware that a consultation has occurred can prevent the possibility of their feeling blindsided, confused, or frustrated, as has occurred after patients discover new, unanticipated information in their clinical notes.<sup>36,37</sup> Thus, increased patient involvement might mitigate patients' negative reactions to reading ethics consultation notes. It could also lead to more frequent challenging conversations with patients, illuminating the need for more formalized training of ethics consultants in interpersonal skills. Cultivation of these skills has long been encouraged by professional organizations,<sup>27,28</sup> but few consultants receive formal training.<sup>6</sup> Thus, patient access to ethics consultation notes might motivate adoption of training in professionally endorsed communication skills.

Although ideal, prior notification and involvement of patients in ethics consultations is not always feasible. Thus, it is also important to address potential patient concerns when drafting a note. Patients' negative reactions might be minimized by including a preface to the notes that (1) describes the nature and purpose of ethics consultations, (2) alerts patients that they might be unaware that an ethics consultation has been requested, and (3) provides information for contacting the ethics consultation service about any questions or concerns. Notes that are written with simple, descriptive language that is supportive and nonjudgmental are least likely to offend patients.<sup>33,34</sup> Consultants should adopt good writing practices, such as reviewing notes carefully to ensure that they are free of errors and convey their intended meaning.

After documenting notes in the portal, it might be advisable for consultants to provide the patient and relevant clinicians opportunities for feedback or discussion of notes and to be prepared to make appropriate corrections.<sup>16,33</sup>

### **Limitations**

We acknowledge there are important issues not mentioned or discussed adequately in this short paper. For instance, there might be fundamental disagreements about the nature (and legal status) of a consultation note. Some might argue that consultation notes "belong" solely to the requestor of the consultation and that she alone decides with whom they are shared. This view challenges our assumption that patients have a right to view their ethics consultation notes. Another important issue not discussed is whether and how sharing notes might affect legal liability associated with ethics consultations.

Nevertheless, we encourage transparency about ethics consultations in the patient portal when possible and see a need for conversation around this important issue. Future discussion could benefit from a detailed description of the challenges of sharing ethics consultation notes and from a discussion of best practices developed by services currently sharing notes.

### Conclusion

As patients become more familiar with accessing their health records through patient portals, ethics consultants should consider how to take advantage of this communication pathway with patients through inclusion of ethics consultation notes in the portal. Inclusion of notes offers the possibility that patients will become more familiar with the work of clinical ethics consultants and that ethics consultation will become more effective in achieving its goals of improving patient care.

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**POLICY FORUM**

**Ethical Choice Architecture in Preabortion Counseling**

Carol A. Westbrook, MD, PhD

**Abstract**

Most women requesting pregnancy termination have already decided to undergo an abortion. Physicians are required to obtain informed consent after offering objective and accurate descriptions of abortion and its risks and benefits. Some jurisdictions also require concurrent counseling and ultrasound viewing. This article discusses potential benefits and harms of providing emotionally charged or biased content about abortions at the time of service, considers what constitutes ethical content, and explores when ethical content should be part of abortion decision making.

**Unplanned Pregnancy After *Roe v Wade***

“I’m pregnant.”

These 2 words can mean, among other things, delight or disaster for a woman. An unexpected pregnancy can be a source of joy, but an unexpected pregnancy can be devastating when it threatens a woman’s life, her social standing, her career, her marriage, or her future. Before 1973, a woman with an unwanted pregnancy was legally obligated to carry it to term in most states, either keeping the baby or giving it up for adoption. Illegal abortions were a third and dangerous option.<sup>1</sup>

The pregnancy choice landscape changed dramatically with *Roe v Wade* in 1973,<sup>2</sup> when safe, legal abortion became a realistic option. Ironically, for some, choice made facing an unexpected pregnancy even more difficult. Even today, whether to continue a pregnancy is one of the most difficult decisions a pregnant woman will ever have to make. To help her decide, she might look for advice and support from a friend, a family member, the baby’s father, or a trusted cleric, but rarely will she consult a physician.

Pregnancy counseling services came into existence when women’s rights gained momentum in the 1970s. As individual states legalized abortion, abortion services incorporated counseling to help women make an informed choice.<sup>3</sup> Clinicians in state-regulated practices, such as Planned Parenthood, were expected to adhere to professional standards and ethical guidelines, as explicitly stated by a number of professional medical organizations<sup>4</sup>; provide comprehensive and unbiased information;

and offer referrals about parenting, adoption, or abortion in order to express respect for a pregnant woman's right to self-determination.

At the same time, fueled by the prolife movement, there was an increase the number of crisis pregnancy centers seeking to counsel women to carry their pregnancies to term<sup>5</sup> by offering inaccurate content portraying abortion as dangerous and as brutal murder of an unborn child. Because they do not offer clinical services, employ physicians, or charge for their services, crisis pregnancy centers are not regulated by states.<sup>5</sup> They target young women with few resources or who are racial and ethnic minorities under the guise of offering balanced, compassionate counseling and may be located near enough to a legitimate clinic to perhaps be mistaken for one.<sup>5</sup>

### **Imagine Decision Design**

Imagine you are a young woman who just learned she is unexpectedly pregnant. You are in shock. Your world has collapsed, your education and career are now possibly in jeopardy, and you don't have a loving partner with whom raise a child. You would like to terminate your pregnancy and you seek advice. You visit a crisis pregnancy center expecting a referral for an abortion. You walk through the door and are embraced by a caring, sympathetic individual, who reassures you that many women have faced this dilemma and chosen adoption. You will be shown pictures of a fetus at varying ages growing into a baby and invited to consider your fetus' "feelings" and "pain" to convince you that terminating your pregnancy is morally equivalent to infanticide. You are told that abortion is dangerous and might increase your risk of breast cancer.<sup>5</sup> You are offered an ultrasound<sup>5</sup> of the fetus in your uterus, and you hear the fetus' heartbeat. You are shown a video of a woman in labor, who then receives her newborn with gratitude. You feel safe but also guilty enough to start adoption paperwork.

Now picture again that you are a young woman, expectantly pregnant, who chooses to terminate your pregnancy. You visit a clinic and speak to a counselor, who presents all options, including adoption. You are offered details about the abortion procedure and schedule an appointment. When you arrive at the clinic the next week for the procedure, you are told that state law requires you to watch a video and have an ultrasound of your fetus, and you are pressed to engage with content that seems intended to convince you not to terminate your pregnancy. You are overcome by feelings of shame and guilt. Then a physician arrives and discusses the abortion procedure and its risks and alternatives and responds to your questions. You consent to an abortion and undergo the procedure and immediate postsurgical recovery. After leaving the clinic, doubt planted by the video and ultrasound grows into guilt and anxiety over the short-term, and you feel traumatized over the long-term, always worrying that you made the wrong decision. You live with guilt, regret, or anguish.

### **Choice Architecture and Timing**

In both scenarios, a requirement to watch a video after a patient has already made a decision undermines her **right to self-determination**. It is unethical to steer a person toward a choice that reflects a clinician's or organization's beliefs when those beliefs are not presented during the time when the patient is making an important decision. In the scenarios, the video is presented during the period between decision and action to be intentionally and maximally disruptive, such that it generates self-doubt. When a choice-to-action timeline is disrupted with this intention, it is, I argue, unethical. This is one reason, for example, that do-not-intubate decisions are discussed when a patient is stable, not when a patient struggles for breath.

Choice architecture—a strategy drawn from behavioral economics to assist in decision making—is predicated on research that shows that how a choice is presented can influence the decision that is made. In health care, choice architecture can help clarify options in a way that avoids biases and improves the quality of decision making.<sup>6</sup> Nudges are appropriate to steer a patient away from a harmful choice or toward a beneficial choice, such as vaccination or life-saving antibiotics, but it is never ethical to use lies and deception or to explicitly undermine a person’s right to self-determination. Crisis pregnancy centers don’t use nudges; they lie.<sup>5</sup>

Abortion, though legal, is **politically charged**, and roughly a third of the public and ob-gyn specialists alike oppose abortion.<sup>7,8</sup> Many states have now passed laws requiring employment of coercive methods in abortion decision disruption. Twelve states have **ultrasound requirements**, and 3 of these (Louisiana, Texas, and Wisconsin) require clinicians to display and describe the fetal image.<sup>9</sup> Eleven states require that, during counseling, women receive inaccurate information: that abortion medication is reversible, that it increases risk of breast cancer, or that it could affect future pregnancy.<sup>10</sup> Lobbying by prolife groups has generated these laws over time, which were created with political goals, not patient-clinician relationships, in mind.

### Decision Disruption

Most women who present to a clinic for pregnancy termination have already made up their minds to have an abortion.<sup>11</sup> Informed consent processes outline risks and benefits, detail options, and offer opportunities for questions and answers. Attempting to persuade a woman to change her mind after informed consent has been given is inappropriate and confusing and unlikely to succeed.<sup>12</sup> Legal approaches to undermining *Roe v Wade* as a precedent that protects safe access to abortion care are intended to undermine patient-clinician relationships, increase a woman’s experience of guilt and anxiety, and impose and intensify psychological trauma. Often overlooked is distress these mandates cause to clinicians who are asked to participate in disruptive choice architecture. Videos and ultrasounds are neither effective nor justifiable influences on pregnant women’s decisions about whether to continue their pregnancies.

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### MEDICINE AND SOCIETY

#### Designing Nudges for Success in Health Care

Joseph D. Harrison, MBDS and Mitesh S. Patel, MD, MBA

##### Abstract

Nudges are subtle changes to the design of the environment or the framing of information that can influence our behaviors. There is significant potential to use nudges in health care to improve patient outcomes and transform health care delivery. However, these interventions must be tested and implemented using a systematic approach. In this article, we describe several ways to design nudges for success by focusing on optimizing and fitting them into the clinical workflow, engaging the right stakeholders, and rapid experimentation.

##### The Potential of Using Nudges in Health Care

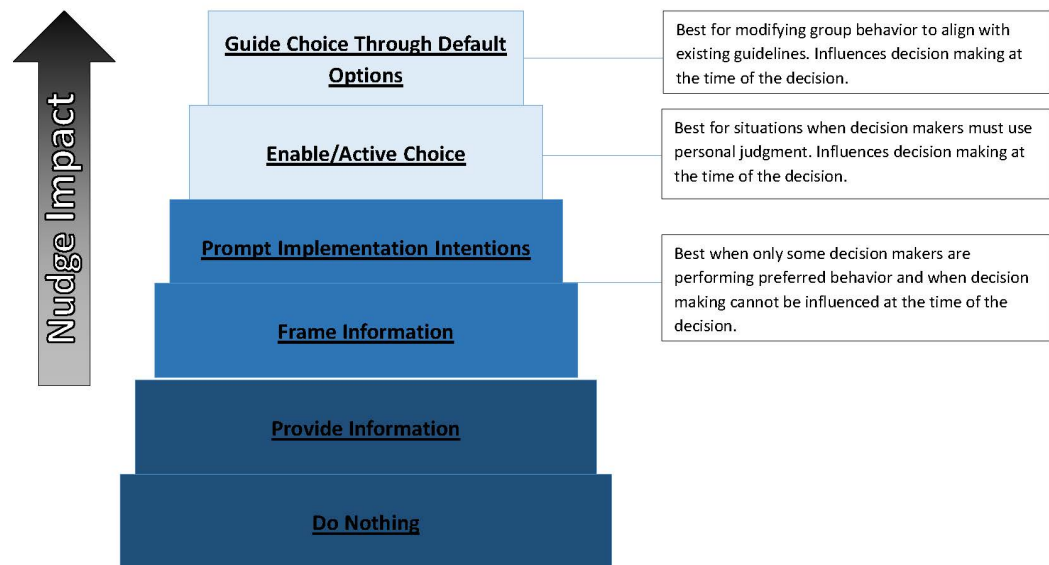
Nudges are subtle changes to choice architecture or the framing of information that can significantly influence behavior without restricting choice.<sup>1</sup> In health care settings, nudges can be used to improve patient outcomes and health care delivery.<sup>2</sup> There is a significant opportunity to expand the use of nudges in health care settings through intentional design, rigorous experimentation, and systematic evaluation. The Penn Medicine Nudge Unit is the world's first behavioral design team embedded within the operations of a health care system.<sup>3</sup> Examples of prior work by our group and others include using default options to increase generic prescribing and reduce opioid prescribing, using active choice to increase influenza vaccination, and using peer comparison feedback to increase statin prescribing and reduce unnecessary antibiotic prescribing.<sup>4,5,6,7,8,9,10</sup> These nudges leveraged the electronic health record (EHR) to deploy scalable interventions throughout health systems. In this article, we will describe key factors that drive successful design and implementation of nudges in health care.

##### Choosing the Right Nudge

Nudges vary in their approach as well as in their effectiveness. The Figure depicts a nudge intervention ladder that can be used by health systems to help guide the development and implementation of nudges in clinical settings.



**Figure. Ladder of Nudge Interventions With Best Practices Recommendations<sup>a</sup>**



<sup>a</sup> Adapted with permission from Nuffield Council on Bioethics.<sup>11</sup> Nudges can produce various degrees of behavioral impact, with information framing exerting lighter influence and guiding choices through defaults exerting stronger influence.

Nudges towards the bottom of the ladder focus on delivering information. These approaches can be used to deliver infrequent messaging that can influence everyday decisions. For example, in a randomized trial testing the use of an automated dashboard, statin prescribing was significantly greater when a single peer comparison message was sent via email at the beginning of the 2-month intervention (with 2 reminders) to inform clinicians of how their performance compared with that of other physicians at their health system.<sup>9</sup>

Nudges in the middle of the intervention ladder depend on framing existing information or on prompting goal-directed implementation intentions that specify when, where, or how goal-directed behavior will be enacted.<sup>12</sup> Behavioral tools such as precommitment devices can be used to prompt implementation intentions and have been deployed in the past to reduce **inappropriate antibiotic prescribing** practices.<sup>13</sup> For example, in a randomized clinical trial of 5 primary care practices, posting a commitment letter in patient examination rooms for 12 weeks resulted in an absolute decrease in inappropriate antibiotic prescribing of 19.7% relative to the control group, for which no commitment letters were posted.<sup>13</sup> In an additional example, leadership across 7 practice sites in the University of Pennsylvania Health System sought to increase high-value prescribing—specifically, of zoledronate over denosumab, which have annual costs of \$215 vs \$26 000, respectively.<sup>14</sup> The retrospective analysis compared increases in the probability of zoledronate prescription of 2 nudge groups—one in which clinical leadership endorsed zoledronate and clinicians received quarterly performance feedback at meetings and via email and another that also included a requirement to justify denosumab prescriptions to pharmacy—to a control group that delivered care as usual.<sup>14</sup> Reframing from leadership and performance feedback was associated with a 26% increase in the probability of zoledronate prescription compared with the control, while accountable justification to pharmacy was associated with a 44.9% increase compared with the control.<sup>14</sup>

As one moves up the ladder, nudges are delivered more directly at the time of decision making either by enabling active choice or setting the evidence-based option as the default selection. While nudges higher on the ladder are often more aggressive, if designed well, they are also often more effective than nudges lower on the ladder. Furthermore, nudges higher on the ladder may best address **suboptimal EHR design**, which may account for potential decision errors that lead to the overprescription of brand-name drugs when more cost-effective, medically equivalent generics are available.<sup>4,15</sup> Recognizing the opportunity to broadly shift clinician behavior to accord existing guidelines, one health system changed the default to set generic prescribing as the opt-out preference, which led to an increase in generic prescription rates from 75.3% to 98.4%.<sup>4</sup> Changing defaults is a good approach when clinicians and patients have weakly held preferences for the options and guidelines clearly indicate that the default option is evidence based.

### **Embedding Nudges Into Clinical Workflow**

Nudges are more likely to be successful when they fit well into the workflow of key decision makers. Moreover, there is often an opportunity to shift work away from busy clinicians and onto other members of the team. For example, in one study, an active choice alert in the EHR was implemented to remind clinicians to address influenza vaccination during patient visits to primary care clinics.<sup>7</sup> Relative to control practices that did not receive the reminder, the intervention practice had an adjusted increase of 6.6% in influenza vaccination. However, there is evidence that too many EHR-based reminders can cause alert fatigue. Therefore, in a subsequent study, the alert was redirected to medical assistants who could template orders for primary care clinicians to review by asking patients during the check-in process if they were interested in receiving an influenza vaccination, thereby reducing alert burden for clinicians.<sup>8</sup> Relative to control practices, this intervention led to an adjusted increase of 9.5% in influenza vaccination, which represents a larger magnitude increase than in the previous study while the intervention more easily fit into clinician workflow. Another study used technology enabled by the EHR to increase low rates of cardiac rehabilitation referral by relieving busy cardiologists of the burden of identifying these patients. Using existing technology platforms, including the EHR, to automatically identify eligible patients and template referral forms increased referral rates from 15% before the intervention to 85% after it was implemented.<sup>16</sup>

### **Stakeholder Engagement and Alignment With Health System Operations**

Designing nudges for successful implementation requires careful attention to and engagement with relevant stakeholders, including personnel responsible for information systems, frontline clinicians, and health system leadership. It is often challenging to navigate the complex social and political environment that influences health system operations and various stakeholder relationships. Individuals interested in designing nudges should consider reaching out to stakeholders within their own institutions to understand their perspectives and align project indicators with stakeholder indicators for success. In a randomized trial conducted with radiation oncologists, the goal was to reduce unnecessary imaging for palliative cancer patients and change physician practices to be more in line with national guidelines.<sup>15</sup> The second author (M.S.P.) and colleagues did several things to engage the appropriate stakeholders. First, the department leadership named this project as one of its quality improvement initiatives of the year. This announcement communicated both the project's importance and leadership buy-in to members of the department. Second, the study team met with all members of the radiation oncology faculty to go over the guidelines and provide them

with feedback on their performance. Third, the intervention—setting the default imaging frequency to be in line with guidelines—was made transparent and communicated throughout the department. Fourth, the study authors obtained feedback from clinicians after the intervention was implemented to identify ways to further improve the design. As a result of this **stakeholder co-design process**, the introduction of a default imaging order in the EHR that specified no imaging for patients undergoing palliative radiotherapy resulted in an adjusted reduction of 18.6% in daily imaging in a network of 5 radiation oncology practices.<sup>17</sup>

There are also ways to engage stakeholders more broadly. Each year, the Penn Medicine Nudge Unit holds a crowdsourcing tournament to identify new opportunities for interventions. During this process, anyone from the health system can submit an idea. Through subsequent rounds of review by the Nudge Unit, the ideas are narrowed down to the top submissions and then the selected teams, comprising health system clinicians and staff, pitch their ideas to health system leadership. This approach engages a broad community within our health system and helps to align the goals of leadership, clinicians, and staff.

### **Rapid Experimentation and Implementation Timing**

Each day, health systems around the country are making changes to the design of EHRs that are meant to influence clinician behavior. These processes are often fluid and dynamic, which allow for frequent changes based on feedback. However, in most cases, EHR changes are deployed without first experimentally comparing the intervention with a control and evaluating it for longer-term periods or for unintended consequences. Randomized trials could be used more systematically to improve the design of these interventions.<sup>18</sup> This more rigorous approach could provide faster feedback for transferring changes that work in one setting to other settings throughout the health system, while curtailing changes that may reduce cognitive burden but do not improve patient care. In a randomized trial focused on increasing primary care physicians' statin prescribing rates, M.S.P. and colleagues conducted a 2-month study to test ways to engage physicians with automated patient dashboards.<sup>9</sup> We found that a one-time message comparing the physicians' performance to peer clinicians significantly increased engagement. This rapid experiment allowed us to incorporate these elements in the design of larger interventions throughout the entire primary care network.

### **Conclusion**

There is a significant opportunity to improve the delivery of health care by allocating more strategic attention to the implementation of nudges to guide clinician decisions and patient behavior. To improve success, it is important to consider the optimal nudge design, embed interventions within clinical workflow (such as through the EHR), engage a wide range of stakeholders, and implement interventions through carefully designed experimentation.

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**MEDICINE AND SOCIETY**

**How to Keep Diffusion of Responsibility From Undermining Value-Based Care**

Leah M. Marcotte, MD, Jeffrey Krimmel-Morrison, MD, and Joshua M. Liao, MD, MSc

**Abstract**

Diffusion of responsibility describes how individuals can underperform in circumstances of shared accountability. While not well studied in health care settings, this phenomenon is an unintended consequence of the health care sector's complexity and fragmentation. This article considers 3 ways in which monetary and nonmonetary incentives can mitigate negative consequences of diffusion of responsibility. First, incentives should be finite and focused. Second, health care organizations can incentivize both individual and team performance. Third, organizations can use peer comparison feedback to amplify effective incentivizing strategies.

**Diffusion of Responsibility**

Diffusion of responsibility describes how individuals can underperform in circumstances of **shared accountability**. While not well studied in health care settings, the phenomenon has been described in a number of other fields.<sup>1,2,3</sup> It increasingly represents a concern in health care, as care delivery complexity increases and the nation continues to shift toward value-based programs that hold clinicians and organizations financially accountable for the quality and costs of care.

Consider care fragmentation—which occurs when patients receive care from multiple clinicians without a main one who guides or coordinates care<sup>4</sup>—as a prominent manifestation of diffusion of responsibility. When patients receive care from multiple clinicians in multiple organizations, diffusion of responsibility can result if each clinician assumes that others have taken on the role of coordination for a patient's care.<sup>5</sup> Unfortunately, a growing body of data demonstrates that higher levels of care fragmentation are associated with adverse outcomes, including increased emergency room, hospitalization, and total health care spending.<sup>6,7</sup>

As a field of study that seeks to explain why individuals consistently make suboptimal decisions, behavioral economics provides a set of principles<sup>8</sup> that can be applied to help mitigate negative performance and outcome consequences of diffusion of responsibility. In particular, health care leaders can use principles and concepts from behavioral



economics to design and implement financial and nonfinancial incentives to establish accountability, set achievable performance goals, and effectively provide performance feedback for individuals and groups—3 key strategies that can counteract diffusion of responsibility across individuals, teams, and organizations in the era of value-based care. Here, we apply behavioral economics principles to strategies related to incentive design and performance feedback.

### **Individual Incentive Design**

Leaders can minimize diffusion of responsibility by giving individual clinicians clear direction about their roles and accountability.<sup>9</sup> As evidenced by contemporary value-based programs<sup>10</sup> and payment codes that encourage delivery of transitional care,<sup>11</sup> individual incentives can be promising strategies for achieving this accountability. This is particularly true when incentives are designed and implemented using the behavioral economics principles of *choice overload* and *goal gradients*.

*Choice overload.* As a behavioral principle, choice overload describes the demotivation that can occur in situations defined by an abundance of choices.<sup>8,12</sup> For instance, dozens of menu options may leave a restaurant patron paralyzed to make a decision, whereas she can make a quicker, more decisive choice between 3 options. As an example within health care, clinicians may be discouraged by quality incentive programs that require choices among a large set of potential performance metrics as opposed to a small set of potential performance metrics. The effect of choice overload, which is compounded by the fact that clinicians participate in multiple quality incentive programs for multiple payers, underlies efforts by policymakers to create “core measure sets,”<sup>13</sup> which seek to improve clinician performance by reducing the burden of choosing among large numbers of metrics.

It is important to counteract choice overload—specifically, the negative impact on clinician motivation of large numbers of both tasks and clinical team members—by designing incentives that streamline the number of tasks and team interactions. Doing so can create positive, synergistic results that encourage rather than discourage accountability by harnessing the motivation created by incentives while averting demotivation due to choice overload.

*Goal gradients.* Individual incentives can also counteract diffusion of responsibility by incorporating goal gradients, a behavioral economics principle that describes the use of graded thresholds as opposed to a single benchmark to set performance goals.<sup>8</sup> One of the limitations of single benchmarks is that while they can motivate individuals near the threshold (ie, those with high likelihood of meeting it), they can be very demotivating for those either above (ie, those for whom the threshold does not apply) or considerably below (ie, those with little hope of meeting the threshold).

Motivation can be increased by setting goals that apply to all individuals regardless of current performance. For example, Blue Cross Blue Shield of Massachusetts’ Alternative Quality Contract—a value-based payment model that was associated with decreased costs and improved care quality over 2 years<sup>14</sup>—incorporated the principle of goal gradients by establishing, for each participating group, 5 sequential performance “gates” for each quality measure, thereby creating achievable graded targets for all groups, regardless of starting performance level.<sup>15</sup> The presence of multiple gates increased the probability that groups across a broad spectrum of starting performance levels would achieve bonuses, with each successive gate offering an increasingly higher

financial incentive. Similarly, individual incentives that incorporate goal gradients could help reduce diffusion of responsibility by motivating individuals.

### **Group Incentive Design**

Leaders can also implement **group incentives** to motivate shared accountability and team performance. Given their broad focus, group incentives might seem like a counterintuitive strategy for mitigating the diffusion of responsibility. However, their potential benefits arise from the widespread presence of social pressure, which describes how individuals are driven to change their behavior based on how they are, or desire to be, perceived by others. Group incentives designed to leverage social pressure thus can focus rather than diffuse responsibility for patient care.

This phenomenon of social pressure has been observed in multiple settings. For instance, many restaurants opt to pool tips among the waitstaff, thereby motivating servers not only to perform well individually but also to pull their weight to contribute to the benefit of the group. As another example, a law firm may choose to allocate a substantial percentage of partner compensation based on overall firm performance.

Group incentives have also been successfully implemented in the setting of value-based health care. For instance, a hospital system that implemented a value-based bundled payment program successfully engaged its physician groups by designing **financial incentives** that were based on group performance.<sup>16</sup> In particular, individual physicians were only eligible for financial bonuses if the entire group achieved a certain performance level—an approach that organically generated self-policing behavior, such that physicians actively held each other accountable and encouraged each other to meet performance goals. This design helped the hospital system achieve savings, maintain care quality, and become a top performer in the program.

Importantly, social pressure can be combined with behavioral economics principles to further increase the salience of group incentives. For instance, in the example above, the hospital system further motivated its physicians to engage in the bundled payment program by combining social pressure with the above-mentioned principle of goal gradients in designing its group incentives. Not only did social pressure motivate individuals (ie, to be perceived positively by their peers for contributing to group performance), but goal gradients increased the personal salience of these efforts by financially rewarding individual performance.

### **Peer Comparison Feedback**

Peer comparison feedback—feedback on individuals' performance relative to that of their peers—is another promising strategy for combating diffusion of responsibility. The power of such feedback lies in its application of the behavioral economics principle of *relative social ranking* and can be further strengthened by incorporating the behavioral economics principle of *immediacy*.

Relative social ranking describes the motivational power of seeing information about one's performance relative to that of others.<sup>8</sup> In an example outside of health care, utility companies promoted energy-conserving behavior by sending customers regular peer comparison feedback reports that included data about their energy usage compared to that of their neighbors. By harnessing relative social ranking via peer comparison feedback, the intervention led to a reported \$1.1 billion in savings.<sup>17</sup>

Similar dynamics have been demonstrated in health care. For instance, primary care physicians reduced inappropriate antibiotic prescribing in response to receiving peer comparison feedback about prescribing behaviors.<sup>18</sup> Peer comparison feedback can include more than just information; it can also incorporate a normative appeal (ie, a judgment about the desirability of a given behavior) as further motivation to improve.<sup>19</sup> Using the example of antibiotic prescribing, health systems could pair peer comparison feedback with normative statements about the inappropriateness of regularly prescribing antibiotics for uncomplicated upper respiratory infections to reduce guideline-discordant antibiotic prescribing.

Importantly, peer comparison feedback need not occur at the individual level to be effective in changing behavior and addressing diffusion of responsibility. For example, a health plan in California used clinic-level rather than individual clinician-level peer comparison feedback to rank clinics based on opioid prescribing behavior. This intervention was a key part of a program that was associated with reductions in opioid prescriptions.<sup>20</sup>

The behavioral economics principle of immediacy describes the association between timeliness of feedback and motivation. In the context of performance feedback, the timelier the feedback, the greater the motivation to change behavior.<sup>8</sup> For example, anecdote<sup>21</sup> and experience suggest that technology such as wearable activity trackers can create and sustain individuals' motivation to increase physical activity by providing immediate feedback about performance and goals.

Immediacy also has a potential role in guiding clinician behavior. For instance, health systems have used immediacy to refine physician incentive programs by moving from quarterly to real-time data feedback as part of a strategy that ultimately improved overall physician quality performance scores.<sup>22</sup> Similarly, by shortening the feedback loop when providing peer comparisons, leaders can leverage the benefits of immediacy to further reduce diffusion of responsibility.

### Conclusion

As the US health system continues to shift from fee-for-service toward value-based payment arrangements, the need for accountability for the quality and costs of care is likely to spotlight the problem of diffusion of responsibility in patient care. The use of behavioral economics principles in designing monetary and nonmonetary incentives can be effective strategies for addressing this issue and motivating clinicians and teams in the era of value-based care.

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**ART OF MEDICINE**

**High Stakes, Serious Noticing**

Aldis H. Petriceks

**Abstract**

Behind the immediate pathophysiology of a medical condition often lies the emotional turmoil of an uncertain patient. As a result, many patients suffer from distressing thoughts and emotions, and their caregivers play an important role in comforting them. But to comfort a patient one must first have some framework to understand thoughts, emotions, and the relationship between the two. In this piece, the author draws from a collection of essays, *Serious Noticing*, written by the literary critic James Wood, to provide such a framework. In his work, Wood writes of 2 methods of reading literature, both embodied in the question: “What is at stake in this passage?” This framework is useful for both the analysis of literature and the understanding of psychological turmoil.

**Two Methods of Reading Literature**

In his recently published collection of essays, *Serious Noticing: Selected Essays, 1997-2019*, the Harvard professor and literary critic James Wood writes of 2 broad methods of reading literature.<sup>1</sup> Both are embodied in the question: “What is at stake in this passage?” This is not a question directly put by most physicians, I imagine, yet Wood’s approach is instructive for those of us who, moved deeply by **emotional suffering**, seek new frameworks by which to understand the mental turmoil of our patients.

Wood’s first method of reading is deconstructive. When reading a piece of literature, he interprets a question originally posited by a mentor of his—“What’s at stake in this passage?”—as asking: “What is at stake in maintaining the appearance of coherent meaning, in this performance we call literature? How is meaning wobbling, threatening to collapse into its repressions?” Here the critic seeks to determine how the meaning of a passage is different from what the reader, or indeed the author, might believe. Wood calls this method *Stakes*<sup>1</sup>: an approach that makes no assumptions that literature has coherent meaning in the first place; fosters no attempts to question the accuracy or distortion of that meaning; and certainly refrains from saying that the meaning should have been different from what it was. The content of a text per se, the direct interpretation of words on a page, is less important here than the understanding of how interpretations and words hold unexpected meanings or no meaning at all.



*Stakes*<sup>2</sup>—Wood’s second method of reading—is more familiar to most. In asking what is at stake, “The common implication here is that meaning has to be earned, that a novel or poem creates the aesthetic environment of its importance.”<sup>1</sup> When reviewers evaluate a novel, they assume it has direct meaning, purpose, and an intended goal, and they are evaluating the success or failure of that novel by asking whether it has conveyed that meaning or purpose and achieved that goal. When a reviewer reads in this fashion, “the text’s success is anxiously searched for, with the assumption that the piece of literature’s lack of success cannot be productive for reading, but simply renders the book not worth picking up.” Meaning, success, importance: these are strictly evaluative terms that imply that content is at the heart of *Stakes*<sup>2</sup>. They suggest there is such a thing as a successful or failed piece of literature, that words and interpretations should be taken as they are and praised or criticized, as opposed to deconstructed. Here, unlike *Stakes*<sup>1</sup>, we might say that an author should have used different words or that the narrative lacked tension, but we would be hesitant to say that the words or narratives did not mean what the author thought they meant.

### Two Methods of “Reading” Psychology

“I’m struck by the differences between these two usages,” Wood writes of the 2 *Stakes*. “Both are central to their relative critical discourses; each is close to the other and yet also quite far apart.” I, in turn, am struck by the psychological implications of 2 separate theories—applied by psychiatrists to emotional disorders—that we might associate with these usages of *Stakes*. There is, for instance, a way to “read” thoughts in the sense of *Stakes*<sup>1</sup>. Treating a patient with an anxiety disorder, a physician might suggest that the experience of anxiety is neither inherently true nor meaningful, merely contextual, one of many possible truths or meanings with no inherent bearing upon the patient’s behavior or emotional state. *Stakes*<sup>1</sup> mirrors the approach taken by psychiatrists who practice acceptance and commitment therapy (ACT). Much as the *Stakes*<sup>1</sup> reader is less interested in direct content and more interested in how literature is “an always-frail ideological achievement, only ever a sentence away from dissolution,” the ACT therapist is intent not on changing the content of thoughts per se but on making the patient aware of the automatic, contextual, nonliteral nature of their distressing thoughts.<sup>2</sup> In doing so, the therapist attempts to distance cognition from its immediate relation to suffering. Here, the key step in healing emotional turmoil is in seeing thoughts for what they are: simply thoughts, only ever a sentence away from dissolution.

There is another approach, however, akin to *Stakes*<sup>2</sup>, wherein it is what we think that truly matters, not merely how we think about it. In *Stakes*<sup>1</sup> the strategy is to accept negative cognitions and defuse their emotional consequences, allowing one to commit to value-based actions as opposed to constantly battling with intrusive thoughts. Under the assumption of *Stakes*<sup>2</sup>, however, maladaptive thoughts contribute directly to emotional disorders and must be addressed if the patient is to alleviate their distress. Just as an author may write unsuccessful novels by using the wrong words, so the patient suffering from anxiety might exacerbate their condition by maintaining irrational fears. Here *Stakes*<sup>2</sup> begins to mirror the theory behind **cognitive behavioral therapy** (CBT). Compared to mindfulness-based approaches like ACT, CBT takes a more causal and evaluative stance on the relationship between thoughts and emotional distress: maladaptive thoughts produce distressing emotions, and the former must be modified or revised before the latter are resolved.<sup>3</sup>

Both methods provide an invaluable, yet perhaps incomplete, portrait of human suffering. Wood illustrates this incompleteness in the literary realm when he writes that

*Stakes*<sup>1</sup> “is non-evaluative, at least at the level of craft or technique,” while *Stakes*<sup>2</sup> is “only evaluative, and wagers everything on technical success, on questions of craft and aesthetic achievement.”<sup>1</sup> Both methods are valid, useful, necessary, and insufficient for the critic. “Not to think about literature evaluatively,” to think only in *Stakes*<sup>1</sup>, “is not to think like a writer—it cuts literature off from the instincts and ambitions of the very people who created it.”<sup>1</sup> But to think only in *Stakes*<sup>2</sup>, “in terms of evaluation, in terms of craft and technique—to think only of literature as a settled achievement—favors those categories at the expense of many different kinds of reading (chiefly, the great interest of reading literature as an always unsettled achievement).”<sup>1</sup> Wood implies that we, as readers, must be willing to employ both meanings of the question—“What’s at stake in this passage?”—if what we are truly after is a deeper understanding of literature.

### Two Methods of Healing Suffering

I believe that we, as healers, must be able to view suffering through multiple lenses—if what we are really after is a deeper understanding of patients. Patients often arrive at the clinic concerned, frightened, fatigued, or otherwise overwhelmed by the implications of what is happening or has already happened to their bodies. Their emotions are associated, more often than not, with specific thoughts. The question, then, is what to do about these thoughts. Does one attempt to change what the patient is thinking? How the patient relates to their thoughts? Neither?

To put it more concretely: imagine a woman in hospice care suffering from anxiety at the end of her life. As the weeks and months progress, she begins to imagine herself wracked with a near-unbearable, aching pain wherein her tumor has metastasized to the bone, and this terrifies her. It prevents her from enjoying time with family or focusing on anything in the present moment.

Beyond the goal of alleviating her pain, what can the physician do? Thinking of *Stakes*<sup>1</sup>, the physician might help the patient realize that her worries are natural, valid, and deserving of acknowledgement but that she need not wrestle against them because, like all thoughts, they are just thoughts, and distress is often propagated by ceaseless inner battles against words and images. In contrast, the physician using *Stakes*<sup>2</sup> might find the patient’s intrusive thoughts a direct impediment to her well-being. Positing a causal link between cognition and emotion, the physician would instead help the patient question the probability, intensity, or consequences of the situation she so deeply dreads. The content of the thought would be questioned—replaced with more “rational” cognitions, which could be further tested and evaluated for their rationality and emotional impact.

Ultimately, however, both methods are incomplete. With that in mind, Wood’s recent collection of essays helps us, as caregivers, to think broadly about psychological suffering—and in doing so, it provides a unique service to the medical humanities. When we typically think of the art of medicine, or of art and medicine, we consider how literature, music, painting, philosophy, or any of the humanistic traditions offers new ways of looking at some aspect of medical practice: end-of-life care in Leo Tolstoy’s novella *The Death of Ivan Ilyich*, the sanctity of caregiving in Sir Luke Fildes’ painting *The Doctor*.<sup>4,5</sup> What Wood offers, however, is something to look *through*: a diverse set of lenses through which we can reflect on and talk about that to which our gaze is properly attended—human suffering. Just as each piece of literature is wholly unique, so each patient is an unrepeatable amalgam of stories and experiences; and both reading literature in only one fashion and thinking of mental anguish in only one paradigm are

equally limiting. As Wood’s title implies, we in medicine must be “serious noticers”—able to think like thinkers, to think of cognition as an always unsettled process. That was formerly the task of the literary critic: it is now the task of our medical art.

High stakes, indeed.

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## ART OF MEDICINE

### Arches of St John's

Richard Wu

#### Abstract

This photograph depicts a gateway at the Oud Sint-Janshospitaal, a medieval Flemish hospital. This hospital was open to the poor and sick, helping to make health care accessible to the surrounding community. Just as it was in the Middle Ages, health care access is a salient issue today.

Figure. *Arches of St John's*



#### Media

Digital photography.

Although gateways are not always the focal point of discussions on architecture, they do serve a significant architectural role as both entrances to and exits from a place. Since gateways are usually the first and last part of an architectural complex to be seen by visitors, their design can often help reveal the intended function of the structures or spaces enclosed within.



This photograph shows a gateway at the medieval Flemish hospital Oud Sint-Janshospitaal (Old St John's Hospital), which was founded during the mid-12th century in Bruges, Belgium,<sup>1</sup> and remained in use as a hospital until the 20th century.<sup>2</sup> The gateway is built from brick and consists of a walled passageway with an arch at each end. One of these arches is a simple semicircular arch. The other, a segmental arch, is topped by a shingled structure with a small oculus, which calls to mind a more modest version of the rose windows found in cathedrals.<sup>3</sup> Overall, the gateway's relatively unimposing appearance and lack of lavish decoration are consistent with the hospital's architectural focus on simplicity and function.<sup>4</sup> Furthermore, the gateway's rather humble and approachable appearance reflects the hospital's mission of **religious charity**, or *caritas*<sup>4</sup>—to serve the sick and poor.<sup>5</sup>

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# AMA Journal of Ethics®

September 2020, Volume 22, Number 9: E814-815

## ART OF MEDICINE

### Ageism as a Species of Bias

Elisabeth Miller, MD

#### Abstract

Good health care for elders requires acute ethical attention to the role of ageism as a pervasive source of bias. A charcoal drawing of one older woman's hand visually examines the nature and scope of younger caregivers' responsibilities to geriatric patients and their loved ones.

Figure. *Health Care for the Aging*



**Media**

Charcoal on paper.



In medicine, clinicians have responsibilities to patients across the lifespan. Geriatric medicine raises moral challenges such as end-of-life care, respect for autonomy, and cost containment of medical services.<sup>1</sup> Ageism is becoming more prevalent in society and in medicine.<sup>2,3</sup> For example, instead of treating an elder as a person with dignity, clinicians sometimes minimize the severity of elders' concerns, attributing them to signs of "old age." Ageism is also conveyed in communications—for example, when clinicians talk to elders as if they're children, particularly when offering oversimplified instructions or explanations. Sensitivity to negative bias, clear communication, and thoughtful action are required to serve patients of any age well.<sup>2,3</sup>

This charcoal drawing depicts an elderly woman being treated via a hand cannula. A younger woman—a health care professional—holds her hand, offering support and expressing respect. The drawing represents the younger generation's responsibility to maintain exceptional care standards for patients of any age.

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# AMA Journal of Ethics®

September 2020, Volume 22, Number 9: E816-817

## ART OF MEDICINE

### Choosing Unwisely

Abey Kozhimannil Thomas, MD

#### Abstract

This comic visually conveys the absurdity of overreliance on symptom measures and excessive testing in contemporary clinical decision making and health care practice.

Figure. *Choosing Unwisely*



#### Media

Sketched with pencil on paper; finished in Corel Paintshop.

### Caption

Diagnostic tests or procedures are unnecessary and potentially sources of iatrogenic harm when ordered out of fear of litigation or for some other reason that does not motivate or inform good care of a patient.<sup>1</sup> Organizations and health care professional societies have introduced many initiatives, among which **Choosing Wisely** is one of the most widely known,<sup>2</sup> to emphasize the importance of evidence-based, patient-centered approaches to diagnostic decision making.<sup>3</sup>

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# AMA Journal of Ethics®

September 2020, Volume 22, Number 9: E818-820

## ART OF MEDICINE

### Data, Decisions, White Coats

Christine Lynn Chen

#### Abstract

White coats are symbols of power that express historically entrenched ideals of clinical purity, sterility, and control. These ideals tend to oversimplify ethical and clinical complexities inherent in evolutions constantly taking place in health care practice. This pen and ink drawing interrogates these ideals visually and reimagines the white coat in the context of more realistic dynamism.

Figure. *A Living Symbol*





## Media

Pen and ink on paper.

## Emergence

Biomedical research constantly produces new data that must be translated and integrated into the evidence bases that justify practice changes. This illustration represents the frenetic pace of data production and the demands it places on clinicians to transform densely packed information, contextualize it into knowledge, apply it to patient care, and respond compassionately to individual patients' and communities' health needs.

Patients' lives are inextricably linked to ever-changing social, environmental, and cultural conditions.<sup>1</sup> In the illustration, a textbook, symbolizing classroom-based biomedical knowledge, peeks out of the white coat pocket. This book's offerings are illustrated as a winding river converging with realities of patient care and their embeddedness in family, community, national, and global histories.

## Conveyance

In health care, practice evolves because decision making evolves. If data emergence is represented as a river, decisions can be represented as a river's movement. The flow is not linear but travels in loops, picking up and depositing "sediment," emerging, conveying, navigating, responding. In the illustration, flowers, leaves, animals, and a human brain nested in dense foliage suggest key roles of human intelligence in guiding, perhaps even directing, health care decision making. One such role involves interpreting and applying data from **artificial intelligence** clinical applications,<sup>2</sup> represented as objects used to instrumentalize and mechanize information presentation and decision support.

Clinicians are not conveyors of patients along this river but are conveyed *with* patients, as birds might navigate by instinct or ships might navigate by compass. Easy decisions and clear answers are few; important crises and hard choices are many.

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**ART OF MEDICINE**

**What the Activism and Art of Felix Gonzalez-Torres and Gregg Bordowitz Teach Us About Health and Human Rights**

Giannella Ysasi Tavano, MA

**Abstract**

Living through a pandemic and social upheaval suggests the importance of revisiting the intersections of the art and activism of Felix Gonzalez-Torres and Gregg Bordowitz. These artists' works express their experiences of living through a pandemic and subsequent social change and draw out key human rights themes. The works' materials, poetics, and invitations to interact offer opportunities for audiences to reflect on complex and ethically relevant social and cultural dynamics that surface during global crises, such as negotiating personal and collective interests, the politics of touch and coexistence, and cultivating resilience and strength.

**Pandemics Through Art**

Today, when thinking about pandemics, we consider global health crises caused by COVID-19 and the subsequent social upheaval that has elevated voices of black people across the United States and the globe. Memory and history remind us of other national and international pandemics and social crises. COVID-19 recalls the Spanish flu pandemic of 1918, and activism still draws on the energy of the civil rights movements of the 1950s and 1960s. Historical moments from the 1980s and early 1990s HIV/AIDS crisis combine fights against disease and fights for health care and human rights. When threats of ill health and **social injustice** collide, the right to live demands that we ask fundamental ethics questions.

Gregg Bordowitz and Felix Gonzalez-Torres' work and histories give us space in which we can recognize the **activism and poetry** with which artists responded (and are still responding) to health and social crises that create moments of collective urgency, uncertainty, and resilience. Bordowitz shares his experience of the HIV/AIDS crisis: "So total was the burden of illness—mine and others'—that the only viable response, other than to cease making art entirely, was to adjust to the gravity of the predicament by using the crisis as a lens."<sup>1</sup> Today, again, we might consider these words and think about ways in which the COVID-19 pandemic crisis offers a lens through which we can learn from these artists and how their work can help orient us to our individual and collective pasts, presents, and futures.

### Representing Incongruence and Inequality

The work of Gonzalez-Torres and Bordowitz, both activists in the HIV/AIDS crisis and both HIV positive, embodies complex **ethical implications of pandemics** that uncover political incongruencies, amplify social inequalities, and reveal sources of personal and community suffering.

**Figure 1.** *Drive*, 2002-2019, by Gregg Bordowitz. Installation view: *Gregg Bordowitz: I Wanna Be Well*. Art Institute of Chicago, April 4 to July 14, 2019, Chicago, Illinois. Image courtesy of the Art Institute of Chicago®.



Used with permission of the artist.

### Media

Vintage wheeled derby car with vinyl stickers on artist-designed plinth, vinyl banner, clocks, and 2 framed exhibition posters.

Gonzalez-Torres' work carries conceptual significance in its intent for the work to hold multiple meanings. For instance, *"Untitled" (Portrait of Ross in LA)*, can be interpreted through the politics of touch during the HIV/AIDS crisis. The pile of candy can be interpreted as representing the artist's partner, Ross Laycock, who passed away in 1991 from health complications related to AIDS. Visitors in the museum gallery are given the choice to grab a candy, take it with them, maybe eat it if they decide to do so. They can also decide to enjoy the artwork simply by looking at it. Having the opportunity to interact with the work is an essential part of the experience. The candy pile (ideally weighting 175 pounds, the average weight of a healthy individual) thus can "lose weight," just as the artist's partner (and many other victims of AIDS) lost weight due to the illness and its treatment. Nonetheless, it is important to note that during any given manifestation of any **candy work** by Gonzalez-Torres, the owner or authorized borrower can make decisions regarding the work's form and weight, so while the work can "lose weight," it also has the potential to be replenished throughout the course of the

exhibition depending on the borrower's decisions. The flexible nature of the dimensions of the work is an essential part of it. The piece uncovers tensions in the museum space in which people are welcomed to touch (and take) the artwork, although visitors in a museum space are more typically surveilled and prohibited from touching at all. The COVID-19 pandemic and antiracism protests expose and elevate similar tensions: the threat of touching what can be infectious coexists with our urgent need to come together.

**Figure 2.** "Untitled" (Portrait of Ross in LA), 1991, by Felix Gonzalez-Torres. Installation view: *Objects of Wonder: From Pedestal to Interaction*. ARoS Aarhus Kunstmuseum, Aarhus, Denmark, October 12, 2019 to March 1, 2020. Curator: Pernille Taagard Dinesen. Photographer: Lise Balsby. Image courtesy of ARoS Aarhus Kunstmuseum.



© Felix Gonzalez-Torres. Courtesy of the Felix Gonzalez-Torres Foundation.

### Media

Candies in variously colored wrappers, endless supply. Overall dimensions vary with installation. Ideal weight: 175 lb.

The pile of candy, slowly dissipating or growing back again, also suggests a visual image of our public health need to "flatten the curve" (a graphic representation of day-to-day statistics) during the early part of the 2020 COVID-19 pandemic in the United States. Sheila Jasanoff, a professor of science and technology studies at Harvard University, argues that the animation and visualization with which pandemic data can now be represented is something that was indeed not possible during the HIV/AIDS crisis.<sup>2</sup> Abstract graphic public health data contrasts with the concrete materiality of the Gonzalez-Torres installation and suggests key ethical questions arising from the relationships between individual life and collective existence during a global breakdown: *When is a life worth saving? When do we declare further measures not worth doing?*<sup>2</sup>



### Artistic Activism

HIV/AIDS activists set a historical precedent in successfully demanding that policymakers address the crisis.<sup>2</sup> The AIDS pandemic was ignored for years, unnamed by politicians and neglected by mainstream society. From 1987 to 1991, Gonzalez-Torres belonged to Group Material, a collective in New York’s East Village whose members were on a mission during the 1980s and early 1990s “to call attention to the unethical and despicable behavior of mainstream society, in response to the AIDS crisis.”<sup>3</sup> But it wasn’t until the mid-1980s, when the demographics of AIDS patients diversified to include users of intravenous drugs and blood products, that governments decided to take action.<sup>3</sup> AIDS activism brought about extraordinary gains, such as drug approvals, increased research budgets, and more targeted science, until 1996 when the US government approved powerful new antiretroviral drugs.<sup>4</sup> Today, again, authorities are called upon to revisit access to health care and to create policies that challenge structural racism at multiple levels of our realities. We have a long road ahead.

Ongoing struggle for health and human rights was the topic of a virtual lecture that Bordowitz gave at the School of the Art Institute of Chicago just as the COVID-19 pandemic started to unfold in the United States in 2020. While discussing his artistic and activist work, he said: “I was doing it, I am still doing it, and my work is an example of how catastrophes get represented, normalized and not really resolved, how the spotlight moves on.”<sup>5</sup> In his recent retrospective show, *I Wanna Be Well*,<sup>6</sup> Bordowitz included a giant banner: “THE AIDS CRISIS IS STILL BEGINNING.” And, like the motto “Black Lives Matter,” this motto compels us to listen, pay attention, look back into history, learn from it, and, more importantly, take action.

**Figure 3.** *The AIDS Crisis Is Still Beginning*, 2019, by Gregg Bordowitz. Installation view: *Gregg Bordowitz: I Wanna Be Well*. Art Institute of Chicago, April 4 to July 14, 2019, Chicago, Illinois. Image courtesy of the Art Institute of Chicago®.



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### Media

Vinyl banner.

In contrast to Gonzalez-Torres' metaphorical and conceptual approach, Bordowitz's work and poetics are explicitly activist in tone. Self-portraits that Bordowitz drew as he lost weight when he was first treated for HIV (see Figure 4) might, on one interpretation of "Untitled" (*Portrait of Ross in LA*), evoke the similar experience of Gonzalez-Torres' partner.

**Figure 4.** Detail from *Self-Portraits in Mirror*, 1996, by Gregg Bordowitz. Installation view: *Gregg Bordowitz: I Wanna Be Well*. Art Institute of Chicago, April 4 to July 14, 2019, Chicago, Illinois. Image courtesy of the Art Institute of Chicago®.



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### Media

Graphite on paper.

Among many other works that represented his lifelong investigations of identity and illness<sup>7</sup> is Bordowitz's other self-portrait in the form of an installation view of his personal library (see Figure 5). A library is both intimate and public, an apt contrast, perhaps, for his personal struggle with illness, which can also inform broader community

efforts to cultivate resilience and strength. In his lecture, Bordowitz stated that the “personal part is about plurality. It shouldn’t evolve into the singular. It should resonate and vibrate with shared experiences.... Art constitutes a great vitality of our lives.”<sup>7</sup>

**Figure 5.** Installation view of *Debris Fields*, 2014, and *Selections From Gregg Bordowitz’s Library*, 1983–2011, by Gregg Bordowitz. Installation view: *Gregg Bordowitz: I Wanna Be Well*. Art Institute of Chicago, April 4 to July 14, 2019, Chicago, Illinois. Image courtesy of the Art Institute of Chicago®.



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The works of Gonzalez-Torres and Bordowitz reveal complex tensions between a personal struggle and a global crisis and pose ethical questions about touch, life and death, privilege, and marginalization. Yet, they also elicit a sense of gratitude and hope for the possibility of building a better future, either by restoring a pile of candy or by sharing one’s library with others—or by restoring a pile of paper.



**Figure 6.** “Untitled” (Passport), 1991, by Felix Gonzalez-Torres. Installation view: *Box of Angels*. 500 Capp Street Foundation, San Francisco, California, May 12 to June 29, 2017. Curator: Bob Linder. Photographer: Johnna Arnold. Image courtesy of 500 Capp Street Foundation.



© Felix Gonzalez-Torres. Courtesy of the Felix Gonzalez-Torres Foundation.

### Media

Paper, endless supply. 10 cm at ideal height x 60 cm x 60 cm (original paper size)  
[4 inches at ideal height x 23<sup>5</sup>/<sub>8</sub> x 23<sup>5</sup>/<sub>8</sub> inches (original paper size)].

Gonzalez-Torres wrote a letter to art dealer Andrea Rosen in 1992 in which he described one of his “**stack works**.” Gonzalez-Torres designed stacks of paper comprised of printed sheets that bear photographic images or oblique texts; individual sheets could be removed by viewers as well as replenished by presenters, respectively. Specifically, with reference to “*Untitled*” (Passport), he suggested that we might be able to go back to art as “a chance to alter one’s life and future, an empty passport for life... A simple white object against a white wall, waiting.”<sup>8</sup>

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**Editor's Note**

Visit the Art Institute of Chicago [website](#) or contact Sam Anderson-Ramos at [sramos@artic.edu](mailto:sramos@artic.edu) to learn more about the museum's medicine and art programming. Browse the *AMA Journal of Ethics* [Art Gallery](#) for more Art of Medicine content and for more about the journal's partnership with the Art Institute of Chicago.

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