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Self-Defeating Codes of Medical Ethics and How to Fix Them: Failures in COVID-19 Response and Beyond

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ABSTRACT

Statements of the core ethical and professional responsibilities of medical professionals are incomplete in ways that threaten fundamental goals of medicine. First, in the absence of explicit guidance for responding to cases in which there is significant uncertainty or disagreement about the relative therapeutic, prophylactic or diagnostic merits of available interventions they perpetuate self-defeating practices. Second, without addressing the role of advertising in shaping patient and community preferences they risk creating moral loopholes that bypass and undermine professional duties of fidelity, honesty and transparency. In both cases, these flaws are exacerbated by an individualism that ignores the critical role of health systems in managing and reducing uncertainty and conflict over best practices, and in communicating with and shaping the expectations of the public. These points are illustrated with examples from the response to COVID-19 and suggestions for reform are proposed.

KEYWORDS

Professional ethics; biomedical research; decision making; health care delivery; human subjects research; public health

Public statements of the ethical and professional responsibilities of medical professionals play at least two important roles. Within the profession, they reflect and help to transmit the values, core commitments and fundamental responsibilities of the profession's members. Outside of the profession, they signal to the public the foundation for trust in, and the scope and limits of, the expertise to which those professionals lay claim. From their ancient roots in the Hippocratic Oath, to the World Medical Association's International Code of Medical Ethics (ICME 2018), currently under revision, statements of the core ethical and professional responsibilities of clinicians have revolved around two sacred relationships.¹ The first is the relationship of trust between the patient and the care giver. The second is the relationship of collegiality between the individual practitioner and other members of the medical profession. Although these expressions of professional ethics contain many values and requirements that are laudable and important, they are incomplete in ways that threaten the fundamental goals of medicine. In particular, they risk perpetuating self-defeating practices and creating moral

loopholes that endanger the ability of the profession to advance the health and welfare of patients.

The first respect in which pronouncements of professional ethics in medicine are incomplete deals with their treatment of uncertainty. In particular, they often contain clear injunctions to always use medical knowledge and skill to advance the interests of patients, but they do not explicitly address how care givers should respond to cases in which there is significant uncertainty or disagreement about which interventions, practices or procedures are likely to best effectuate this goal. The second deals with the way that patient and community beliefs and expectations are shaped by medical advertising. In both cases, the largely individualistic focus of statements of professional ethics in medicine obscures the critical role of health systems in managing and reducing uncertainty and conflict over best practices, and in communicating with and shaping the expectations of the public. To carry out their moral mission in the twenty-first century, expressions of professional ethics in medicine must address the responsibility of clinicians to ensure that health systems are organized to learn, and that health systems communicate with the

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¹For a scholarly review of physician oaths, and public codes of medical ethics, see Baker et al. 1999.

public on terms that respect and promote the fiduciary duties of care givers.

UNCERTAINTY IN CODES OF MEDICAL ETHICS

Despite contemporary medicine's repudiation of the overt paternalism of the Hippocratic tradition, the ultimate moral responsibility of the medical professional has remained remarkably stable across time: to "benefit my patients according to my greatest ability and judgment, and [to] do no harm or injustice to them" (Hippocratic Oath 2013). Although one of the great accomplishments of contemporary medical ethics was to identify a key respect in which medical professionals have to overcome incompleteness in their knowledge in order to effectuate this goal, there is little guidance for how responsible professionals should respond to and manage medical uncertainty.

Within the Hippocratic tradition there is an implicit assumption that upon completing one's medical education, one has acquired the knowledge necessary to translate therapeutic intent into clinical benefit. So strong was the duty to use one's judgment to benefit the patient and to protect the patient from harm that it was seen as legitimating the abrogation of a patient's right to self-determination. Critical to the justification for overriding patient autonomy was the idea that health is always a patient's highest priority and that the clinician's superior knowledge about the best ways to protect, preserve or restore health grounded a responsibility to act in the patient's interests, even if that meant overriding the patient's ability to make free and informed decisions for themselves (Goldman 1980, 156–229). It was not seen as a "harm or injustice" (Hippocratic Oath 2013), in other words, to withhold information, to lie or to cajole as long as these were done to advance the patient's medical best interests and to protect them from harm.

Contemporary medical ethics changed the distribution of labor in the professional-patient relationship, in part, by challenging the completeness of the professional's knowledge of the patient's interest. That is, medical ethics recognized that the place of health in a person's priorities depends on the goals, values and ideals around which they structure their particular life-plan. For example, where some patients might elect to receive life sustaining medical care under almost any circumstances, others might refuse such care out of a concern for their dignity, the desire to retain control over their lives, or to avoid living in conditions they simply do not value. The argument that patients should be free to act on this conception

of their own welfare was bolstered by the recognition that self-determination has sufficient independent value that there is a strong moral presumption that its abrogation is wrong, even if done out of a concern for the patient's best interests. As a result, to respect patient self-determination in this new division of labor requires open and honest sharing of information and collaborative discussion aimed at clarifying what a patient's medical best interests are in particular circumstances and forming a care plan that advances those interests. In forming such a plan and in carrying it out, however, clinicians are still subject to their ancient responsibility to use their knowledge and skills to advance the interests of patients.

Contemporary statements of professional ethics recognize that cases may arise in which the individual care giver lacks the knowledge or expertise to address a patient's health needs. But the paradigm of learning they require is information or skill acquisition from, or transfer to, others. For example, the WMA's ICME says that "Whenever an examination or treatment is beyond the physician's capacity, he/she should consult with or refer to another physician who has the necessary ability." The key assumption here is that *there* is another physician who *has* the necessary knowledge or ability. In other words, statements of professional ethics presuppose that the profession already has all of the knowledge that it needs to translate therapeutic intent into clinical benefit.

What are medical professionals to do in cases where they confront novel medical conditions? What about cases where available treatments for a medical condition do not work or there is significant disagreement about whether any of them confer a net prophylactic or therapeutic advantage to patients? Such situations are not explicitly addressed. This leaves medical professionals to infer their duties from the other values and commitments that are clearly articulated in expressions of their moral and professional obligations.

To judge from current expressions of professional ethics in medicine, care givers have two options. The first is take into account all of the relevant medical information and use their expert, professional judgment to recommend the option they regard as likely to be best (recognizing that "best" now must reflect the patient's values and priorities). The second option is to consult with one or more colleagues and seek a second opinion. After doing this, presumably, the clinician is to form an all-things considered judgment about which option to recommend in light of this new information. There is a third option, namely, to

conduct scientifically sound and socially valuable research. The problem is that the first two responses to uncertainty or conflicting expert judgment grow directly out of explicitly stated professional obligations and, as we see in the next two sections, there is a long tradition of seeing the medical professional's core values as inconsistent with this third option.

As a result, the dominant view of the medical professional's moral responsibilities in the face of uncertainty or conflicting expert opinion is self-defeating. At best, it severs a meaningful connection between the moral duty to use one's skills and abilities with therapeutic intent and the moral ground for that duty, namely, the patient's interest in receiving care that actually confers a medical benefit. At worst, it impedes the conduct of socially valuable medical research without making any person better off in the process. I argue for each of these claims in turn.

THERAPEUTIC INTENT WITHOUT WARRANT

As I write, we are in the midst of a pandemic in which more than 11 million Americans have been infected with the SARS-CoV-2 virus, over 248,000 people have died from COVID-19, the disease caused by this virus, and many more have been hospitalized. When the outbreak occurred, experts scrambled to identify interventions that might be used to prevent or treat COVID-19. The assembled list included prednisone, dexamethasone, baricitinib, methylprednisolone, enoxaparin, colchicine, remdesivir, favipiravir, ivermectin, tocilizumab, lopinavir/ritonavir, azithromycin chloroquine/hydroxychloroquine and convalescent plasma (Herper and Riglin 2020).

Each of these interventions was selected on the basis of hypotheses regarding disease mechanism and drug action, including prior evidence of efficacy in diseases hypothesized to have similar pathophysiology. None of these interventions was supported by direct evidence of safety and efficacy in patients with this novel disease. As a result, different experts, surveying all relevant information, are likely to arrive at different conclusions about whether any of these interventions are likely to confer a net therapeutic advantage to patients with COVID-19 and, if so, which one is likely best.

The individualism of codes of professional ethics encourages diversity in treatment practices without articulating any obligation to generate the evidence needed to discern which, if any, of those practices actually translate therapeutic intent into concrete benefits for patients. In particular, statements of

professional ethics speak to individual professionals and detail their personal responsibilities. The ICME, for example says that the individual physician "owe his/her patients complete loyalty and all the scientific resources available to him/her." With these resources the individual clinician is to, "always exercise his/her independent professional judgment." and to "... act in the patient's best interest when providing medical care."

If each of the above interventions was regarded as most likely to confer a therapeutic advantage to the patient by at least one expert in a practice group (or if each were the preferred option of different practice groups), then each of these clinicians would be duty bound to provide a different intervention to patients with the same medical condition. Moreover, each would be duty bound to provide something that a supermajority of their colleagues' regard as inferior care (since those other experts regard a different intervention as likely to be better than what any individual clinician recommends).

What is the warrant for supporting such a diversity in clinical practice? If we had established, for example, that there are subtypes of COVID-19 for which each of these interventions is most effective, or if we had established that patients with different clinical characteristic were likely to respond differently to these interventions, then this diversity of practice would reflect the precision of our understanding of the pathophysiology of this disease and of the causal contributors to more mild versus more severe disease course (National Research Council 2011). But in the face of a novel pathogen about which relatively little is known, this diversity in practice reflects the imprecision of our knowledge. The different hypotheses about disease pathophysiology and similarity to other known pathogens that support these different interventions have not been empirically tested. The clinical effects of these interventions have not been established under conditions that control for confounding.

Despite the fact that current approaches to drug development leverage large data sets to generate hypotheses of the sort described above to identify drug candidates for development, roughly 90% of such interventions are never approved for any indication (Hay et al. 2014; Thomas et al. 2016; Wong et al. 2019). During this process, it is common for interventions to show significant promise in small, early phase trials but to fail in large, confirmatory trials (also known as phase 3 trials). Moreover, this failure rate is somewhat generous since drugs that enter the pipeline as candidates to treat one condition sometimes end

up being approved for a different indication. While that might be a great boon to investors, it isn't much consolation for the patients with the condition that was the initial target for development. Likewise, regulatory approval is not always a reliable proxy for improving clinical outcomes that matter to patients since many interventions are approved on the basis of surrogate endpoints that may not track clinically meaningful gains in survival (Kemp and Prasad 2017).

In light of these base rates for success in drug development, it seems unreasonable to expect all of the experts evaluating candidate interventions for COVID-19 to identify an intervention that can alone bring about substantial clinical improvement. Even if we thought that it was reasonable to expect a success rate 3 times the average, that would still mean that a supermajority of the professionals in our example above are duty bound to recommend an intervention that is unlikely to confer a net therapeutic advantage in practice and that may be affirmatively harmful to recipients.

The core commitments of codes of professional ethics thus obligate medical professionals, in the name of fidelity and beneficence, to perpetuate practices that are unlikely to advance the health and welfare of those patients. Such dissonance between professed commitments and the foreseeable effects of the conduct they require is morally corrosive. It erodes the foundation for public trust by eliding the very factor that is supposed to distinguish science-based medical practice from the myriad of similar undertakings in which "healers" of various kinds prescribe liniments and tonics with the best of intentions, namely, the probability that those prescriptions will actually confer benefits to recipients. Health systems that include this kind of unwarranted diversity also squander scarce resources, including the time and attention of clinicians, that could have been used more effectively and efficiently.

Thanks to a few well designed randomized controlled clinical trials, we now know that several of the interventions listed above are ineffective, including chloroquine/hydroxychloroquine. In particular, results from the U.K. RECOVERY trial showed that "Among patients hospitalized with Covid-19, those who received hydroxychloroquine did not have a lower incidence of death at 28 days than those who received usual care," and that such patients "had a longer duration of hospitalization" and among those who were not in need of mechanical ventilation at baseline, "the number of patients who had progression to the pre-specified composite secondary outcome of invasive

mechanical ventilation or death was higher among those in the hydroxychloroquine group than among those in the usual-care group (risk ratio, 1.14; 95% CI, 1.03 to 1.27)" (RECOVERY Collaborative Group 2020). Before those results were announced in early June 2020, the U.S. distributed 31 million doses of hydroxychloroquine from the strategic stockpile which still contains 63 million doses of hydroxychloroquine and 2 million doses of chloroquine (Cohen and Bruer 2020). The clinicians who administered this intervention believed they were discharging their moral responsibility to be faithful to the best interests of their patients. In contrast, the best science conducted to date suggests that if anything, this massive delivery of an investigational agent for a novel disease was ineffective and likely increased avoidable morbidity and mortality. Additionally, the rush to procure this medication as a treatment for COVID-19, created shortages that left some of America's 1.5 million patients with Lupus, a medical condition for which this drug has been established safe and effective, scrambling to maintain access (Mehta et al. 2020).

IMPEDING A PUBLIC GOOD

In the last section I argued that the core commitments espoused in statements of professional ethics in medicine encourage a kind of myopic decision making that decouples therapeutic intent from the conferral of therapeutic advantage. In the worst case, these values are taken to prohibit professionals from participating in research that has the potential to resolve these uncertainties and to align therapeutic intent with patient benefit.

A classic statement of this position is provided by Enkin:

An ethical physician must do what is best for his or her patients. She cannot participate in a controlled trial if she is certain that one arm is superior to the others and that some of her patients will receive an inferior treatment by participating in the trial. It does not matter whether her certainty is based on formal scientific studies, on personal experience, on anecdote, on tacit understanding, or rules of thumb. Whether her certainty is in accord with or diverges from the view of the medical community is irrelevant. Uncertainty is a moral prerequisite for a controlled study. If we know what we should do, we should do it, not study it (Enkin 2000, 758)

This passage captures the duty to retain one's independence, and to use the knowledge that one possesses to act in the best interests of patients. It also states with succinct clarity a point that is often

inferred from statements of professional ethics, namely, that clinicians are obligated to use the available evidence to advance patient interests, regardless of the pedigree of that information.

The problem with this position, however, is that it is self-defeating: it does not make anyone better off and it makes almost everyone worse off (London 2019). This position permits clinicians to use the flimsiest of evidence to form different preferences over the same set of interventions for patients with the same medical condition. It requires those clinicians to treat patients with what they regard as the superior member of that set. But it prohibits those same clinicians from enrolling patients into a clinical trial, even if those patients would be randomized only to interventions that other informed experts would recommend as the optimal intervention for that same patient. It does this despite the fact that which intervention a patient receives in the clinic is often determined by happenstance. For example, patients live closer to hospitals with a particular practice pattern and so they see physicians who favor x whereas patients across town or in a different region are more likely to see physicians who favor y (Freedman 1987, 145).

Moreover, imagine a group of enterprising patients with the same condition who learn that each has received a different treatment recommendation. Each patient seeks a second, third, and n th opinion and is given n different treatment recommendations by these n different experts. Each *patient* is at liberty to roll an n -sided die in order to decide which of these n clinicians will provide their care. But these clinicians are prohibited from enrolling those same patients into a trial where randomization is used to allocate them to the same n treatment regimens.

In a clinical trial, these patients are allocated to x, y, \dots, n by a random process in order to control for confounding. Participants are not made worse off, however, since each receives an intervention that would be recommended for them by at least a reasonable minority of expert clinicians (London 2018). Within a clinical trial, however, they receive these interventions under conditions that allow differences in patient outcomes to be more reliably attributed to the interventions they receive. This, in turn, creates an important public good, namely, the knowledge that a wide range of stakeholders use to make important decisions.

Clinicians rely on the knowledge that is produced in medical research to translate therapeutic intent into clinical benefit. They depend on research for evidence

regarding the indications in which a drug is likely to be beneficial versus those in which it is ineffective or harmful. They rely on it to understand the dose at which a drug should be given to confer benefit and the window below which it is inert and above which it is toxic. They rely on this evidence to understand the pace or schedule needed to produce a beneficial effect and the window below which its efficacy wanes and above which toxicities increase. They rely on this information to understand diagnostic criteria needed to identify patients with conditions that put them at increased risk of experiencing adverse effects, necessary co-interventions to reduce adverse effects and to promote desired effects, and to identify contraindications for use, including interactions with other drugs or medical interventions. (Kimmelman and London 2015).

Patients rely on the information produced in research to understand their medical condition, to evaluate the relative merits of alternative courses of care, and to avoid squandering their time and their health on ineffective or harmful procedures. Health systems and policy makers rely on this information to decide whether to procure, support and deploy interventions in order to discharge their responsibilities to use shared resources to secure and advance the welfare of the people who rely on them.

When perceived professional obligations lead care givers to avoid collaborating with research, by discouraging their patients to participate or by refusing to join research efforts more directly, they extend the length of time that ineffective or unsafe interventions are delivered in clinical practice. This leaves patients, other care givers, and health systems worse off than if there were widespread support for quickly eliminating medical uncertainty or conflicting expert assessments by encouraging participation in scientifically sound and socially valuable research.

Finally, the reluctance or refusal of medical professionals to expeditiously mount research collaborations or to encourage their patients to participate in such studies is not only self-defeating, it represents a last vestige of medical paternalism (London 2006, 106–107). The core norms of medical professionalism explicitly recognize the right of patients to seek second opinions and to receive care from any professional who is willing to provide it. But discouraging the widespread support of scientifically sound and socially valuable research deprives patients of the option of receiving investigational agents under the controlled and carefully monitored conditions that produce an important public good. This is a vestige of

medical paternalism because it reduces the options available to patients ostensibly out of concern for the interests of those very patients. It is unjustified, however, since restricting or eliminating this option only consigns patients to access those same interventions under conditions that are less well controlled, less well monitored and that do not produce an important public good.

Even if individual patients in clinical trials only receive interventions that might be recommended for them by at least a reasonable minority of clinicians, it might be objected that clinical research sometimes requires tests or procedures that are provided not because of their likely benefits to the individual, but because of the way they contribute to the scientific value of the study. So, it might be argued that clinicians have a duty of fidelity to the interests of the patient before them to safeguard them from such risks. But such a position imposes a more paternalistic standard for research participation than is accepted even in routine medical practice since there are significant parts of medical practice in which clinicians perform invasive, burdensome and even risky procedures on patients for the purpose of benefitting others. Vaccination is a clear example in which the risks to those vaccinated are often quite low. Living organ transplantation is another, but in this case the direct burdens and risks to donors are significantly more pronounced (Miller and Joffe 2009).

Voluntary and informed participation in research often carries far less risk than living organ donation. In fact, it almost certainly carries far fewer risks (for far fewer people) than receiving investigational agents outside the carefully controlled and carefully monitored context of a scientifically sound and socially valuable clinical trial. Because it also has the potential to generate a public good that can improve the lives of vast numbers of people, the absence of an explicit commitment to fostering ethically sound and scientifically rigorous research frustrates the interests of medical professionals and the patients who rely on them.

The ravages of our current pandemic have been exacerbated by the dynamics described here. The idea that sound scientific methods are incompatible with the clinician's core responsibilities has contributed to the widespread use of investigational interventions outside the context of well-designed clinical trials. More than 90,000 patients have received convalescent plasma in the U.S. alone as of this writing (Rogers 2020). Had only a small fraction of those patients participated in a properly designed randomized controlled clinical trial we would know whether this

intervention should be provided to more patients or whether our resources are better spent elsewhere (Califf et al. 2020, E2).

It has also contributed to a "cacophony" of poor-quality research (Califf et al. 2020). In an interview with the *New York Times Magazine*, the charismatic French physician Didier Raoult explained that it is "unnecessary, in addition to being unethical, to run randomized controlled trials, or R.C.T.s, of treatments for deadly infectious diseases" saying, "We're not going to tell someone, 'Listen, today's not your lucky day, you're getting the placebo, you're going to be dying'" (Sayare 2020). Instead of conducting a properly controlled clinical trial, Raoult and colleagues conducted an open-label, non-randomized study of Hydroxychloroquine and azithromycin as a treatment of COVID-19 (Gautret et al. 2020). Despite its lack of randomization and a series of methodological shortcomings (Kim et al. 2020; Machiels et al. 2020), the striking findings of this small study launched a veritable land-rush of enthusiasm for prescribing hydroxychloroquine or investigating its merits. This high-profile example is also emblematic of the proliferation of small, uncontrolled, studies that have led one research team to remark of the 1551 studies launched during the current pandemic that, "Even before results are known, most studies likely will not yield meaningful scientific evidence at a time when rapid generation of high-quality knowledge is critical" (Pundi et al. 2020).

I am not saying that the core commitments expressed in public statements of professional ethics in medicine are solely responsible for the many failures that have plagued the medical and public health response to COVID-19. These failures are undoubtedly the result of multiple contributing factors, including the uniquely dysfunctional political environment in the U.S. at the time. I am saying that these norms, and the self-defeating practices that they perpetuate, are among the factors that have contributed to these failures and that we ignore that fact at our collective peril.

DUTY TO SUPPORT LEARNING HEALTH SYSTEMS

To ensure that the therapeutic intent of medical professionals is likely to translate into meaningful benefits for patients and to prevent the self-defeating obstruction of well-designed and ethically responsible medical research, current statements of professional ethics in medicine should be updated to include the following duty:

Duty to Support Learning Health Systems: When experts disagree or are uncertain about the best means of preventing, diagnosing or treating sickness, injury or disease, medical professionals have a duty to support, and not to undermine, health systems that conduct scientifically sound and socially valuable studies in a timely manner in order to eliminate or substantially reduce this conflict or uncertainty without compromising respect for the rights and interests of study participants.

First, a focus on health systems is necessary to rectify the traditional but overly narrow focus on individual clinicians in dyadic relationships with patients (London 2005, 2018, *forthcoming*). Patient care is increasingly provided by teams of care givers who must share information and coordinate activities in order to advance patient interests. Health systems provide the structure and organization in which this division of labor takes place from determining criteria for accessing services to devising and disseminating treatment protocols.

Second, health systems in a flourishing scientific community are likely to include experts with diverse opinions about the pathophysiology of novel diseases or diseases that have proven difficult to treat. They are likely to regard as credible different hypotheses about the similarity of diseases, mechanisms for treatment effects, and whether particular interventions will activate those mechanisms in a way that will produce a net therapeutic or prophylactic advantage to patients. In such cases, experts are likely to support different policies, practices and interventions as having superior merits relative to various alternatives.

Third, when informed medical experts are uncertain about which care is optimal, or they have definitive but conflicting preferences for different interventions, RCTs represent a way of providing access to medical interventions under conditions that support reliable inference about the relative clinical merits of those interventions. Moreover, when studies are designed to address such uncertainty or conflict, they have a strong *prima facie* claim to social value. This claim is grounded in the likelihood that their results will alter clinical practice in ways that eliminate waste and promote higher quality of care. Information that is capable of altering clinical practice this way is a public good that enables a wide range of stakeholders to better discharge their social and ethical responsibilities.

The timely conduct of such research produces health systems that reduce diversity in practices by generating the evidence necessary to reduce or eliminate conflict or uncertainty. In the face of scarcity and urgency, as in the present pandemic, meeting this

challenge is likely to require considerable cooperation and coordination not just between individual researchers in local health systems, but across health systems (London and Kimmelman 2020). In this regard, the success of the U.K.'s RECOVERY trial is a compelling example of the ability of widespread cooperation and coordination across an entire national health system to configure the delivery of care in a pandemic within a framework that produces reliable clinical evidence. Contributing to such efforts reduces the number of patients who receive ineffective or harmful interventions, increases the efficiency with which scarce resources are used, and provides a credible assurance to communities that the therapeutic intent of care givers is supported by the evidence necessary to confer clinical benefits in practice. Expressions of the core ethical commitments of medical professionals must be updated to capture this fact and to dispel the lingering but erroneous perception that research participation conflicts with the fundamental moral duties of care givers.

ADVERTISING AND HEALTH SYSTEMS

Because health systems play such an important role in organizing health services, codes of professional ethics should also be updated to reflect obligations of care givers to ensure efficacy, efficiency, and equity in the way that those systems divide labor, organize and deliver care, and shape stakeholder expectations (London, *forthcoming*). For our present purposes I flag one obligation in this regard that is of particular salience.

The ICME holds physicians to the duty to deal honestly with patients and to “recognize his/her important role in educating the public” including using “due caution in divulging discoveries or new techniques or treatment through non-professional channels.” If codes of professional ethics urge relationships of trust and transparency between providers and patients but ignore the role of health systems in shaping patient expectations, this opens up a moral loophole. Health systems not only play an increasingly critical role in organizing patient care, they control the messages that patients hear before entering into relationships with clinicians. As a result, they shape patient expectations through advertising and public messaging without being bound by the same fiduciary duties as clinicians. Health systems can thus make claims that, if not false as literal assertions, nevertheless communicate messages to patients that are misleading (Schenker et al. 2014).

For example, one ad on Youtube features Dwayne “The Rock” Johnson urging people who have recovered from COVID-19 to donate plasma because, “the plasma that’s in your blood can literally save lives.” (CSL Behring 2020). At the time of this writing, large scale clinical trials involving convalescent plasma are ongoing. The ad is sponsored by The Fight is In Us, a coalition of academic medical centers, pharmaceutical companies and other groups. While the information page for the coalition mentions that donations are needed to support research into the merits of this treatment strategy, the glossy video featuring a Hollywood superstar gives no hint of uncertainty about the lifesaving value of convalescent plasma. It “can literally save lives.”

Public assertions that investigational agents “can literally save lives” threaten to undermine the very research activities they supposedly support by creating the perception that there is no uncertainty about the clinical merits of these interventions (London and Kimmelman 2018). Without uncertainty, however, there is no ethical rationale for randomizing a patient to an alternative intervention. Additionally, some partners in this coalition, such as the Mayo Clinic, offer access to direct transfusion outside of clinical trials on an expanded use basis (Nellis 2020). Despite the fact that more than 90,000 patients in the U.S. have received convalescent plasma, uncertainty and disagreement about the relative merits of this intervention contribute to inefficiencies in patient care and health service delivery. Rigorously designed clinical trials are desperately needed to establish whether this intervention confers meaningful clinical value. Advertising that states that convalescent plasma “can literally save lives” undermines this goal by influencing public perception in a way that makes such studies appear unnecessary or unethical.

Advertising a promising but still investigational intervention as having the power to literally save lives shapes patient beliefs and expectations long before they encounter a clinician. As health systems take an increasingly important role in organizing care, the professionals who populate those systems have a duty to ensure that their messages to the public are honest and accurate, not just in the letter of what they say, but in the ultimate message that they communicate. Without such a commitment, the health care provider’s duty to deal honestly with patients can be undercut or bypassed by the messaging of health systems that inflate expectations, flatten complexity, and shape patient preferences to increase the utilization of services without being bound by the fiduciary responsibilities of the providers who populate those systems.

CONCLUSION

No medical professional is an island. Medical knowledge is produced from a division of social and epistemic labor across time and across a wide range of stakeholders (Kimmelman and London 2015). Clinicians are not merely the end-users of that knowledge. They influence patient attitudes toward research opportunities, where such opportunities are available, and this in turn influences the probability that studies will recruit a sufficient number of participants to expeditiously generate reliable medical evidence. The perception that research is inconsistent with the duties of medical professionals contributes to the cacophony of poor-quality research and the perception among patients that research is a not an attractive avenue through which to contribute to the common good.

When medical professionals confront novel conditions, when diversity in practice reflects the imprecision of our knowledge, or when there is uncertainty or disagreement about the relative merits of therapeutic, prophylactic or diagnostic modalities, then clinicians have a responsibility to support and promote health systems that are configured to expeditiously generate high-quality evidence that is necessary to reduce that uncertainty. The failure to recognize such a moral responsibility is ultimately self-defeating and reflects a lingering vestige paternalistic overreach.

Rectifying this oversight in professional ethics in medicine requires a new attention to the relationship between health care providers, local health systems, and the network of health systems that constitute the individual and public health infrastructure of a state.² As these systems play an increasingly important role in the organization of medical practice, the people who organize and participate in them have an equally important obligation to make sure that those systems engage with the public on terms that are honest and

²In London (forthcoming) I argue for what I call the egalitarian research imperative. This is the claim that:

The Egalitarian Research Imperative: There is a strong social imperative to promote the ability of communities to create, sustain, and engage in research understood as a scheme of social cooperation that respects the status of stakeholders as free and equal and that functions to generate information and interventions needed to enable the basic social systems of their community to equitably, effectively and efficiently safeguard and advance the basic interests of its constituent members.

I argue that this imperative is binding on a wide range of stakeholders, not merely medical professionals. The reason is that an effective system of medical research requires a broad range of social supports. But I also argue at length that such an imperative does not condone the abrogation of participant rights and interests or justify the conscription of participants into medical research since these practices would undermine the requirement to foster a system of knowledge production that respects the status of its stakeholders as free and equal persons.

transparent, that preserve the integrity of medicine, and that ensure that therapeutic intent translates into meaningful clinical benefit for patients.

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