

Philosophy *of* Medicine

The Examination Room

Why Race and Ethnicity Are Not Like Other Risk Factors: Applying Structural Competency and Epistemic Humility in the Covid-19 Pandemic

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Abstract

Since early in the Covid-19 pandemic, there have been wide disparities observed between different US racial groups' rates of Covid-19 infections and deaths. This challenges physicians and patients to untangle what these race-associated risks mean for an individual patient. I argue that this task of providing individualized risk advice requires physicians to apply two skills: structural competency (an understanding of how societal features affect health, since race-associated risks are the result of social conditions, not innate biological differences) and epistemic humility (being mindful of the limitations of individual knowledge and a habit of working collaboratively to get the knowledge that is needed).

The Covid-19 pandemic has inspired a barrage of data and messages about the vastly different risks faced by different groups of people. For instance, US American Indians and Alaska Natives have faced hospitalization rates 3.5 times higher than non-Hispanic White Americans. The US Centers for Disease Control and Prevention (CDC) stresses that such disparities are primarily due to social context: “Race and ethnicity are risk markers for other underlying conditions that affect health including socioeconomic status, access to health care, and exposure to the virus related to occupation, e.g., frontline, essential, and critical infrastructure workers” (Centers for Disease Control and Prevention 2021a). This reality confronts physicians in the clinic when patients ask questions such as: “Am I more likely to die from Covid-19 because I’m Native American?” I argue that in order to effectively answer such questions calls upon physicians to apply two skills: structural competency (an understanding of how societal features affect health) and epistemic humility (being mindful of the limitations of individual knowledge and a habit of working collaboratively to get the knowledge that is needed).

Examination room conversations about what a patient’s race or ethnicity means for their risk require physicians to understand and communicate the tricky relationship between person and environment. Race is not a Covid-19 risk per se—for example, African genetic ancestry is not why Black Americans have suffered disproportionately higher death



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rates from the pandemic. Rather, race is a proxy for a range of medical risks that arise out of the contingencies of an unjust social world, such as the labor inequities of Black Americans being disproportionately employed in “essential worker” jobs that result in high exposure to infection but low pay and social status.

There are many ways of envisioning the relationship between the individual patient and their environment. And it is not a new suggestion to say that clinicians should deal with the fact that patients are members of societies, complete with material inequities that affect patients’ health. For instance, the field of “social medicine” takes these societal inequities to be a central concern in medical care (Anderson, Smith, and Sidel 2005). In recent years, there has been growing attention to the framework called “structural competency” as a means of addressing the relationship between social injustices and patient health. Jonathan Metzl and Helena Hansen offer this definition:

We define structural competency as the trained ability to discern how a host of issues defined clinically as symptoms, attitudes, or diseases (e.g., depression, hypertension, obesity, smoking, medication “non-compliance,” trauma, psychosis) also represent the downstream implications of a number of upstream decisions about such matters as health care and food delivery systems, zoning laws, urban and rural infrastructures, medicalization, or even about the very definitions of illness and health. (Metzl and Hansen 2014, 126)

Whether one is formally trained in a structural competency curriculum,¹ structural thinking more generally can be used in concrete ways to improve patient care.

For physicians to be able to explain why Covid-19 has burdened some racial and ethnic groups more than others, they need to have some familiarity with the social patterns that lead to the average risks being elevated. In the US, Black people have long been disproportionately incarcerated, with the jails and prisons transforming into even worse death traps during the pandemic; Black and immigrant meat-processing workers continue to suffer in unsafe workplaces with the added threat of Covid-19 infections, and so on.² These disproportionate pandemic burdens are not coincidences but rather the results of long-standing practices: oppressive policing of Black neighborhoods, meat-processing facilities long known to exploit socially marginalized workers in unsanitary conditions, et cetera.

Pandemic disparities falsely appear to be bizarre cases of bad luck, unless put into the context of the overtly unjust status quo before the pandemic. The sheer scale of *pre-pandemic* US health inequities is enormous: when divided into census tracts (districts roughly the size of neighborhoods), there was a 13.1-year gap in life expectancy between the top 5 percent and the bottom 5 percent of those tracts (Boing et al. 2020). This is why “the belief that Zip code may be more important than genetic code in determining health is gaining ground” (Slade-Sawyer 2014, 395), though that sort of binary depiction is an oversimplification of interacting health forces (Krieger 2017; Slade-Sawyer 2014).

Patients are navigating risks within an unjust world—one in which housing, safe working conditions, and so on are not guaranteed for all—and they need advice suited to the task. Race is a proxy variable for one’s risk status, a marker that indicates a person is more likely to have experienced a cluster of negative environmental influences. As the CDC explains: “The term ‘racial and ethnic minority groups’ includes people of color with a wide variety of backgrounds and experiences. But some experiences are common to many people

¹ See Neff et al. (2020) for an open-access structural competency curriculum.

² For a review and discussion of these disparities, see Valles (2020).

within these groups, and social determinants of health have historically prevented them from having fair opportunities for economic, physical, and emotional health” (Centers for Disease Control, 2021b).

In other words, the fact that Black patients—on average—are at higher risk for Covid-19 is the result of a set of (largely known) causes. The task for clinicians is to sort through a given Black patient’s risks to see which of those causes are pertinent and to address each of them as well as possible. What is the patient’s housing situation, and does it present heightened risks due to crowding or other factors? What kinds of workplace hazards do they face? After the clinical encounter, is the physician going to be able to answer any follow-up questions the patient might have? Will getting any additional medical advice be affordable for the patient, and made available in a timely manner?

The Covid-19 pandemic now offers an opportunity for illustrating the way structural thinking can be wielded in the clinic, to the benefit of patients. An understanding of deep-seated societal injustice enriches an understanding of an individual person’s Covid-19 risks. But even if one accepts the value of situating patient risks within a structural competency framework, it still leaves open the question of how to make sense of patient questions such as “Is Covid-19 worse for me because I’m Black?” How does the cause of a risk matter for how we should think and talk about that risk?

It is both a conceptual mistake and a practical mistake to think of race (a proxy variable) as being the same sort of Covid-19 risk factor as age (both a causal variable and a proxy variable). For incompletely understood biological reasons, age is strongly associated with Covid-19 morbidity and mortality and that seems to hold across different social contexts; waning production of T-cells in the thymus is one possible feature of the aging process that could contribute to this age-related risk (Palmer, Cunniffe, and Donnelly 2021). This biological risk—age operating as a causal variable—is compounded by age *also* being a proxy variable for other risks that are contingent on social environment, including the fact that age is associated with housing in congregate living facilities (for example, nursing homes) that are often ill-equipped to prevent viral spread between residents.

Age thus has a combination of risks, some due to direct biological risk factors and others that are only indirect correlates of age, such as residing in eldercare group housing. By contrast, race is a demographic factor that does not cause Covid-19 risks directly. Rather, race-associated risk offers a summary measure of features of how patients, on average, interact with their social worlds. This is practically important because the social world, and interactions with it, are modifiable in ways different from how biological risk factors are potentially modifiable (for example, vaccination to bolster elders’ immune response to Covid-19). Known social policies and practices created phenomena, such as the housing inequities and concentrated poverty that afflicts Detroit, which in turn set the stage for the majority-Black city to suffer disproportionate Covid-19 harms, beginning early in the pandemic (Laster Pirtle 2020). Workplace risks are modifiable by creating and enforcing strict workplace safety regulations, including providing high-filtration masks to employees. Housing-related risks are modifiable by expanding the rental/mortgage assistance programs that local, state, and national policymakers have been reluctant to provide. Individual patients and their physicians can only make some of the risk modifications (for example, discussing masking practices), while most of the other risks are modifiable by public policies.

To give an example of the proxy variable versus causal variable distinction, and why it matters, my own personal risk profile serves as an illustration. I am a 38-year-old Chicano Hispanic man, and in the US Hispanic people are—on average—three times more likely to be hospitalized for Covid-19 compared to non-Hispanic White people (Centers for Disease

Control and Prevention 2021a). But I am not at high risk of either infection from Covid-19 or of relatively severe symptoms if I were to be infected. My ethnicity is an indirect proxy for various social, environmental and behavioral factors that affect Covid-19 risk. Few or none of those associated risks happen to apply to me: I have a comfortable and stable income; safe, uncrowded housing; I telecommute to work as needed, and have few other exposure routes. Meanwhile, my high education level and English language fluency mean that public service messages about pandemic safety, instructions for vaccine registration, and so on are written in language and phrasing that is accessible to me. Furthermore, my vital statistics similarly indicate that I would have a low risk of harm if I were to be infected—the prevalence of type 2 diabetes is relatively high among my peers (which is a risk factor for more severe Covid-19 symptoms), but I am not diabetic. I am thus an outlier in my low personal risk while being in a collectively high-risk social group, since I have fortunately evaded the set of social disadvantages that would have put me at personally elevated risk.

My case is unique, but this is the point: all cases are unique. Within-group variation is why patients need their individual risks to be explored in the clinic. We assess and treat each patient as an individual. I recognize the value of carefully deployed generalizations, and I am not opposed to the use of terms such as “Hispanic” in medical research or clinical practice (Valles 2016). What matters is how such information is used. If a patient’s ethnicity or race can serve as a starting point for a conversation about the patient’s challenges in safely navigating a racist social world, in which a pandemic is exacerbating the same racist inequities, then that is a step in the right direction. After all, structural competency has been pointed out as a key component of an antiracist medical system (Crear-Perry et al. 2020). Someday, I would appreciate having a physician who says to me: “Let’s talk about the ways that the environment tends to put Latinos at risk of health harms and see which of those risks might apply to you, so that we can do something about them.”

Addressing biological factors without giving the same diligence of scrutiny to social factors is one of the ways that England’s National Health Service (NHS) stumbled when it began responding to disproportionately high rates of Covid-19 deaths among the “Black, Asian and Minority Ethnic” NHS healthcare staff (Chaudhry et al. 2020). The NHS began assigning risk scores to staff based on body mass index, preexisting conditions and other biometric features. Such a risk-measurement system does not address income disparities, housing arrangements, or micro manifestations of larger power structures, such as the fact that “Black, Asian, and other ethnic minority doctors” faced higher rates of being pressured into treating patients while lacking sufficient personal protective equipment (Mahase 2020).

One might object that raising the subject of race is introducing a hot-button topic to the examination room, opening up the possibility that the clinician could be misunderstood, perhaps even accused of racism. Such reticence is understandable. As Eduardo Bonilla-Silva (2018) explains of racism in the US (with extensions to elsewhere in the world), the middle of the twentieth century brought about a pernicious new discourse around race and racism that has largely persisted. The “color blind racism” that took hold is an intricate set of cultural practices that avoid talking about race and racism whenever possible. However, the net effect of this new discourse is that racial inequities are left unchallenged, and antiracist social change is hindered, rather than helped. Among other problems, avoiding discussions of race and racism facilitated the replacement of overtly racist housing policies with “race-blind” policies that have nonetheless kept US neighborhoods nearly as segregated as before (Bonilla-Silva 2018); left the racial wealth gap such that Black Americans have about one-eighth that of White Americans (Bonilla-Silva 2018); and failed to prevent massive racial inequities from arising during the Covid-19 pandemic. Racial inequities have thrived in the

shadows. Meaningful antiracist action will require candor and directness that will often be uncomfortable, all the more so for White clinicians (Bonilla-Silva 2018).

Having established the value of structural competency for these sorts of patient risk conversations, it is important to acknowledge that actually teaching such skills to physicians is no small challenge. Educational research evaluating a formal structural competency curriculum for medical residents found an intriguing mix of effects that help to show the promise of structural thinking, as well as the frustrations one faces on the way (Neff et al. 2017). On the one hand, “residents stated that the training had a positive influence on their relationships with patients, helping them to ‘build a partnership’” (Neff et al. 2017, 432). On the other hand, “residents reported feeling overwhelmed by their increased recognition of structural influences on health. They expressed a need for practical strategies to address structural vulnerabilities in and beyond clinical settings” (Neff et al. 2017, 432). And this is where epistemic humility comes in. In order to cope with the feeling of being overwhelmed by the huge range of societal factors shaping patients’ health, this disposition toward “building a partnership” is exactly the sort of humble strategy needed to get through the “overwhelmed” feeling and to make headway benefiting patients.

It is a daunting challenge, as a clinician, to cope with the vast range of ways that societal structures influence patients’ health. Such a challenge calls for an attitude toward knowledge that is suited to coping with that frustrating and momentous task. Epistemic humility offers such an attitude. But there are diverse accounts of epistemic humility, and I draw on the formulation offered by Anita Ho. Ho has written a powerful argument for epistemic humility, particularly as a component of responsible and well-grounded knowledge practices in the clinic. She says:

Epistemic humility is a disposition as well as a commitment [...] It means a commitment to make a realistic assessment of what one knows and does not know, and to restrict one’s confidence and claims to knowledge only to what one actually knows about his/her specialized domain. In particular, it is a recognition that knowledge creation is an interdependent and collaborative activity. (Ho 2011, 117)

Ho’s account of epistemic humility essentially describes the sort of mindset needed for clinicians to make effective use of structural competency knowledge.

The structural thinking-humility links arise out of the connections between (1) a realization that health is powerfully shaped by social context; and (2) the clinician practice/skill/orientation of contending with one’s limited knowledge resources for helping a given patient. In other words, patients’ health is shaped by everyday life in an inequitable world, and this realization invites clinicians to accept that they need to look to unfamiliar sources of knowledge and expertise in order to help patients face health challenges. This is no small task, in part because the topic of uncertainty is a glaringly absent component of medical education (Tonelli and Upshur 2019).

A humble clinician reflects on the limits of their knowledge and ability, then seeks to work collaboratively to gain and use the knowledge needed for patient care (Ho 2011). Refer a patient to an immigration advocacy organization if their health opportunities are being constrained by fear of immigration authorities. Learn where the local food banks are, and ideally what they offer and whom they are designed to serve. Keep a supply of pamphlets from local mutual aid organizations, legal clinics, bus routes, and so on. Bookmark the webpage of the Kink Aware and Poly Aware Professionals Directory for patients who need to navigate the nuances of non-monogamous or kinky safer sex in challenging environments (whether the challenge is the pandemic, being closeted in a hostile community, or both, or

something else).³ Clinicians should not be expected to be all-knowing. Often, other people and resources will have the information that a patient needs. The key is epistemic humility: an orientation toward working collaboratively with the patient, and any others needed along the way, to serve the patient's well-being.

It is a uniquely difficult thing to advocate for humility, since attempting to affect someone else's behavior raises the question of the qualifications of the advocate. As Bonilla-Silva says of antiracist advocacy work: "Never forget that trying to change people requires tons of humility" (2018, 243). I am not a clinician, yet here I am attempting to convince clinicians to change their behavior. I do not see this as being a contradiction, in large part because, ultimately, I am *not* advocating for clinicians to accept my personal wisdom over their own. Rather, I am advocating for clinicians to open themselves up to learning about synthesizing many other kinds of wisdom, then using that synthesized wisdom in the interests of their patients. There is a massive literature on race, racism, and racial inequities as they relate to Covid-19 and countless other health matters. It is an expression of humility to pursue structural competency and to directly address the racism of the pandemic's effects on patients. When I say, "Be humble," I am saying: "Look outside the examination room; learn about the world that patients occupy; draw on diverse sources of knowledge to understand how that world affects patients' health; and use that knowledge to help patients."

The exhortation to see knowledge creation as a collaborative activity is especially compelling in the case of patients' challenges in navigating health risks in a world disrupted by Covid-19 and the surrounding social tumult (anxiety, food insecurity, social isolation, and so on). There are no obvious or objectively correct answers as to how to balance and manage those risks. The best we can do in the clinic is to have patients and clinicians work collaboratively and humbly to design a strategy for navigating the challenges.

Put in theoretical context, the exhortation to think about the social conditions in which patients live has been a recurring message of advocates of a "population health" approach to health. As put by Sandro Galea and Katherine Keyes, two leading advocates of such an approach:

While this pandemic was novel in 2020, its population health footprint was established long before the novel coronavirus crossed over into humans, following causes that are influenced by causes at multiple levels of influence, from national and state policies, through local conditions of exposure, to forces that shape risk of other diseases that in turn predispose populations to COVID-19 infection and its consequences. (Galea and Keyes 2020, 1235)

A population health perspective asks that we consider not just *what* the risks are but also *why* the risks exist as they do (Valles 2018). In the case of race and Covid-19, the need is all the more pressing. We need clinicians to know not only that Black patients are at disproportionate risk of harm from Covid-19 but also that the elevated risks are due to malleable social conditions—for example, occupational hazards that might call for detailed advice about making the best of the situation.

We praise physicians when their knowledge of a patient goes beyond their vital signs and a limited set of behaviors (for example, smoking), extending into patients' psychological state as well. Are they reticent to take a prescribed medication, and why? Do they see any of their physical ailments as spiritual/supernatural in origin or in appropriate solution? Such knowledge of psychological factors is valuable. Structural thinking takes this a step further:

³ See: <https://www.kapprofessionals.org/business-directory-2/>.

clinicians can and should contend with the fact that their patients' health is powerfully shaped by how they live their daily lives in an inequitable world. Doing that kind of structural thinking, and effectively acting on it, requires that clinicians practice epistemic humility.

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