



Academic During a Pandemic: Reflections from a Medical Student on Learning During SARS-CoVid-2

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Abstract

The current pandemic represents unprecedented times in medical education. In addition to the already strenuous demands of medical school, the SARS-CoVid-2 pandemic introduced a new source of ethical and moral pressure on students. Medical students navigated finishing their didactic years in isolation and initiated their clinical rotations in a pandemic environment. Many medical students found themselves in the frustrating position of being non-essential healthcare workers but still wanting to help. This paper follows the personal and shared experiences of a second-year medical student transitioning to their third year. In particular, this paper examines the author's personal ties to the disability community through their family, and how this impacted their approach in striving to aid in the pandemic.

Keywords Medical student education · Disability rights · Healthcare rationing · SARS-CoVid-2 · Disability ethics

Introduction

On January 20, 2020, the CDC confirmed the first case of the novel coronavirus in Washington State. The report got my attention, but I did not think much of it. Thirty one days later, the first case was confirmed on the East Coast of the United States. My family mobilized immediately. We had no choice. My twin sister, Ava, has an autoimmune disease and her biologic therapy leaves her immunocompromised. This routine was not new to us; we are always on high alert for risks to her health. When she first experienced unrelenting fevers on a beach vacation when we were 8 years old, my parents were worried she had cancer. Although we were relieved when she was diagnosed with an autoimmune process rather than cancer, her disease fits no specific diagnostic criteria and attempts to manage her illness have been difficult. When we were 12 years old, disease flares made her miss weeks of school. Her

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doctor put her on an aggressive steroid regimen in an effort to control her symptoms. The side effects were horrible. The weight gain from the steroids made Ava nearly unrecognizable; she was severely bullied both at school and in her ballet classes. At the time, I could not wrap my mind around the concept of a chronic illness. I did not consider her disease a disability. She was set apart and marginalized by our peers. Her current therapy regimen is a game-changer. Her symptoms are controlled fairly well, but at the cost of a compromised immune system. I became acutely aware of her marginalization when America reported the first case of SARS-CoVid-2. She was living as a graduate an 11-hour drive from our my parent's home. Within weeks, we understood the risks she was living with, as she had no way of quarantining herself when she shared a small house with three roommates. Her move home was inevitable. My parents struggled to find a safe place outside our home for her to quarantine. They are active care providers in the community, and they posed a significant contagion risk to her. The move back home might seem like drastic measure considering how little we understood about the virus at that time, but to Ava, it was not as disappointing as the time we cancelled our 8th grade field trip to Washington D.C. when the swine flu broke out.

While immediately seriously concerned for the health of my sister, I did not anticipate how much the pandemic would shift not only the dynamic of my medical education, but also my understanding of my place in medicine as a whole. As a second year medical student, my classmates and I were in the uncomfortable position of having the dedication to want to lend aid in the hospital, but lacking the experience or knowledge needed to be of use. We all were left in a frustrating position. As the pandemic progressed, I became increasingly aware of the absolutely essential need for a diversity of voices in medicine to assure that all patients' basic rights are protected- particularly the voices of disabled people, like my sister.

As reports of SARS-CoVid-2 began to escalate in late February, tensions were already high in my medical school class. For second-year medical students, the spring semester was the last block of material we had to negotiate before our first board exam, Step 1.¹ Preparing for and taking Step 1 represents a monumental hurdle for medical students across the country. It is a considerable source of stress and constant topic of conversation from the first day of medical school. None of the students in my class had given much thought to SARS-CoVid-2 as it spread in China in early January. It did not appear to be a threat to us in the United States. After news broke of that first case in Washington State, however, we were unnerved but still unsure of what to think or how to react. The only information we had as second-year students was a short video presentation on the family of Coronaviridae that we had viewed back in the fall semester several months prior. Social media further confused my peers and myself as we watched Americans across the country document their spring breaks on Instagram and Facebook. Photos of packed beaches and bars

¹ The United States Medical Licensing Examination (USMLE) is a three-step examination for medical licensure in the United States and is sponsored by the Federation of State Medical Boards (FSMB) and the National Board of Medical Examiners (NBME). The first two steps are taken in the undergraduate years while the third step is taken in the internship/residency.

floated across our newsfeeds showing partying on all coasts. Unlike so many young people, my family could not forget that we were in the middle of our first pandemic in living memory. Ava was already quarantined alone in a house and afraid to go out to get groceries or supplies. She begged her friend group to stay home to protect her and other vulnerable people like her.

Ava connected me with the disability community some years ago on social media. Through this online community, I got a raw and honest take on the experiences of people living with disabilities before and during the pandemic. Twitter and Instagram offer intimate perspectives of people with a spectrum of disabilities. Long before the national call for masks and hand hygiene, many disabled people wore masks, carried hand sanitizer, and practiced the type of protective measures able-bodied persons did not consider before SARS-CoVid-2. Normal daily interactions threaten the body and health of disabled people and people with chronic illness—always. For the first time, the rest of us got a taste of what life has always been like for people with these health issues. These groups fight constantly for resources and conditions that make their lives more equitable to able-bodied people. This pandemic unmasked these health disparities and intensified the threat to these communities' health and wellbeing (American Medical Association 2020).

By mid-March, the SARS-CoVid-2 surge in Italy began to overwhelm the existing healthcare system. The term “healthcare rationing” was circulating on the media as doctors were forced to make decisions about who lived and who died. As a second-year medical student, the stark truth was terrifying. It dawned on my classmates and me that medicine is not bulletproof— it has limitations and people die. With the onset of the pandemic, our country, communities and schools had to consider what would happen if thousands of people were infected, and we did not have enough ICU beds or ventilators to take care of them. Suddenly, all over the United States, healthcare providers were scrambling to address the ethical criteria to decide who would be turned away and who would be treated. The potential scale of need and the paucity of resources was devastating to even consider. As medical students, it was disconcerting to see our professors and teaching staff try to process a dire healthcare situation without precedence.

Most immediately, I feared for my sister. Would healthcare rationing imply that Ava's life had less worth than those of able-bodied people? State guidelines vary with regards to healthcare rationing criteria. In Tennessee, people with spinal muscular atrophy and people who require assistance in activities of daily living could be excluded from critical care in situations of scarcity (Andrews et al. 2020). Unfortunately, the entire world found itself in a situation where life-saving medical supplies and healthcare provider intervention was limited, making rationing strategies essential. But were current guidelines for healthcare rationing regarding disabled people ethical?

It seems reasonable to create rationing strategies that emphasize survivability and quality of life, but is it even possible for an able-bodied person to determine quality of life? Rationing policies on these standards alone reduces the value of the lives of disabled people. In the early months of the pandemic, these issues were not adequately considered by many hospitals. Disabled people are consistently underrepresented in every level of healthcare decision making and healthcare rationing policy

may be insufficient when involving disabilities (Andrews et al. 2020). This lack of representation embodies a conflict between mainstream bioethics and disability rights called the “insider/outsider distinction” (Dembo 1964). This conflict implies that because healthcare professionals are the “outsider,” the decisions they make regarding treatment outcomes for disabled people “affects them little” (Andrews et al. 2020). Therefore, able-bodied healthcare professionals are less likely to make decisions that hold disabled people in equal regard to able-bodied people (Dunn 2019). Furthermore, few policies take into account the discrepancy between quality of life as self-reported by people with disabilities, and quality of life as estimated by healthcare professionals. Able-bodied healthcare professionals consistently predict poorer quality of life for disabled people than what is self-reported (Ubel et al. 2005). When healthcare rationing guidelines are based on inadequate criteria, marginalized groups—particularly the disabled community—suffer (Amundson 2005). My sister Ava suffers. Disabled people deserve just consideration especially in a pandemic.

Besides worrying for Ava, I fretted over what this pandemic would mean for myself as a medical student. The Monday after St. Patrick’s day, our school transitioned to online-only formatting, and sheltering at home was required. When we transitioned to online-only classes, the majority of my classmates were thrilled. Less time spent commuting to the school meant more time to study for Step 1, the first (and arguably most important) of many medical board exams. Unfortunately, this “extra study time” was not the advantage we had all hoped for. During my preparation for Step 1, I studied for upwards of 10–16 hours a day. Pre-SARS-CoVid-2, these hours were split between study rooms, coffee shops, the library, and my bedside desk. Quarantine, however, restricted my options to either my desk or my couch. The isolation and monotony was stifling as lines blurred between study breaks, house chores and bedtimes. After spending that much time alone, steeped in material with no one to bounce ideas off, I got a very, very small taste of what it meant to be marginalized. I was, in effect, a shut-in. I found this extremely frustrating: I had committed my life to heal the sick and at a time when healthcare professionals were most needed, I did not possess nearly enough meaningful knowledge or skill to be of any use. My fellow medical students and I found ourselves in a strange limbo. People were sick and dying in our own community—all of us were so eager to help but we had not even begun our in-hospital training. After reaching out to other students, I discovered that my classmates felt the same exasperation. We felt guilty sitting at home doing nothing while the pandemic raged outside our doors and front-line healthcare providers were putting themselves at great risk. After reaching out to students at other programs across the country, it was clear I was not the only medical student wanting to address the fears and frustrations surrounding the pandemic. With my sister in mind, I knew I wanted to direct some of my energies to the disabled community.

The needs of the disability community were being discussed inside and outside the medical communities. The Autistic Self Advocacy Network pushed for the Department of Health and Human Services (HHS) to publish official guidelines to fight the discrimination in standards of care rationing during SARS-CoVid-2. The guide established by the HHS put forth requirements to ensure fair treatment of

disabled people when healthcare rationing is necessary, as “the lives of people with disabilities are equally worthy and valuable as those of people without disabilities... and must have an equal opportunity to receive life-sustaining treatment” (Pervez 2020, p. 1). Healthcare workers, leaders, and policy-makers in the healthcare field consulted this guide that avoids unconscious bias and stereotypes in making critical healthcare decisions. This framework may prevent moral injury in the healthcare providers that must make critical decisions by creating meaningful access to a standard of equality (Andrews et al. 2020). Furthermore, these guidelines alleviate the burden on the disability community by providing equal access to life-sustaining resources when hospitalized in a critical care setting (Andrews et al. 2020). As of April 2020 when these standards were adopted, the disability community gained a voice. The Office for Civil Rights (OCR) at the Department of Human Health and Services worked with state governments to revise their state-wide policies regarding triage and healthcare rationing policies in the pandemic. Tennessee revised its policy to remove categorical exclusion criteria that hindered disabled people from receiving the best care (U.S. Department of Health and Human Services 2020a, b). Furthermore, policies that indirectly impacted people with disabilities were analyzed and revised to better address special circumstances. For example, Connecticut issued a state-wide, no-visitation policy for short-term hospitals, outpatient clinics, and outpatient surgical facilities. This policy had a very narrow set of exceptions allowing people with disabilities to have support persons as “visitors”. This extremely restrictive policy left many people with disabilities who require support persons with no access to the support they needed. People with disabilities such as aphasia and short-term memory loss simply cannot function without a support person to help aid in communication and comprehension essential to their comfort and care. The OCR also reached a resolution with the state of Connecticut to ensure that people with a wide range of disabilities could access the support persons they needed in the event of a hospitalization (U.S. Department of Health and Human Services 2020a, b). It was inevitable that these conversations about change in other parts of the country would trickle down to the medical student online conversation and chat groups. We discussed ways to initiate change first-hand, in our own communities.

Back home, my sister Ava was quarantined alone in a family friend’s house. My family did the best they could to make her feel less alone in her isolation with grocery deliveries and Facetime calls. It was on one of these Facetime calls that Ava reminded me that many members of the disabled community had little to no support in obtaining the necessities: food, medicine, and social interaction. We discussed how SARS-CoVid-2 made a trip to the pharmacy or grocery store a life-threatening task. It sickened us both to think that someone should have to risk their life to get the necessities for themselves or their families. I told Ava how grateful I was that our parents were near her so she would not have to take this risk herself. I expressed frustration that I was not there to also help her. Ava asked me, was there not a disabled community in my own town? She pointed out that I had time, a car, and a whole community of medical students itching to help those in need. I did not have to reinvent the wheel. Students in other medical schools were realizing that they could also be of use outside the hospital, and they shared their ideas. Some of us volunteered to help perform SARS-CoVid-2 testing for the health department, while

others provided free childcare to healthcare workers. Thanks to my sister's insight, I enlisted the help of my classmates and started a grocery delivery service for disabled people and the elderly.

The effort was not limited to able-bodied students—even those with health risks and disabilities participated in the cause by directing contactless communication and organizing outreach. We networked with medical students from across the country, creating websites and group chats to share ideas, models, resources, as well as encouragement. Getting this system in place not only helped the disabled community; it also helped my classmates and me settle down to the work of dedicated studying for Step 1. This renewed our ability to persevere as the weeks of isolation took their toll. The comradery between classmates is something that makes the impossible demands of medical school palatable, and I was saddened that I did not have access to my classmates and professors during the most difficult semester of my career as of yet. I missed my friends but was grateful we could come together virtually and create a sense of community with the remarkable individuals within the local disability population.

By the end of July, the majority of my class completed the Step 1 board examination. Finally, we would be entering the hospital for inpatient clinical training and would be allowed to see patients in person. SARS-CoVid-2-specific protocols presented multiple barriers to us as new orientees in the hospital. The masks in particular place us at a distinct disadvantage as physicians in training. Nurses and experienced physicians are adept at reading people's eye micro-expressions, body language and general disposition (Pfister et al. 2011). These non-verbal cues are essential to patient evaluation because people do not always indicate with words how they feel out of fear, anxiety, or mental status changes. As students, trying to decipher pain, progression of disease, and confusion in the eyes is challenging. On a good day, I am learning to read the subtleties of facial expressions of my patient. On a bad day, half of the face is covered up and I only have access to the patient's eyes expressions for clues to their general state of health. The patient is in a similar boat; my eyes and words sources of information and reassurance concerning their health status. When masked and I smile, my face may be read as a blank stare. I have had to re-route the way I signal facial expressions in an effort to communicate anything at all. Now, I consciously smile big enough to squint my eyes.

Additionally, we faced the issue of “clinical distancing”, its own barrier and source of frustration. Clinical distancing is when healthcare providers keep a safe distance from SARS-CoVid-2 positive patients by limiting the number of team members and amount of time spent with the patients (Alsherbini and Elijovich 2020). There are some patients I am particularly fond of and I like to check on them outside of my required rounding. One patient in particular presented to the hospital for acute pancreatitis, but required further evaluation for pancreatic cancer. I wanted to be a part of that conversation and observe the resident explain the possible diagnosis and the necessary testing. However the patient tested positive for SARS-CoVid-2 and due to my program's protocol regarding student exposure, I could no longer visit this patient. I still followed his care with the team, but I was denied the chance to speak with the patient or help him process his feelings about what was happening to him. Although medical students do not have clinical expertise,

our patient load is miniscule compared to the nurses and physicians around us. We are able to spend far more time with our few patients than our mentors and may be able to pick up on subtle shifts in mental status or disease progression that might go underreported by nurses or residents. Regrettably, because of SARS-CoVid-2, we were unable to observe and then offer our insights.

In March of 2020, the American Association of Medical Colleges produced guidelines for medical student involvement in the pandemic. These guidelines instructed medical schools to suspend clinical clerkships and “unless there is a critical health care workforce need locally, we strongly suggest that medical students not be involved in any direct patient care activities” (Whelan et al. 2020). In other natural disasters, medical students were able to continue their education while contributing medical aid. However, SARS-CoVid-2 presents a specific set of circumstances. Medical students are warm bodies that can deplete already dwindling PPE resources. Additionally, they are at increased risk for contracting SARS-CoVid-2 simply by being in hospitals (Ferrel and Ryan 2020). With these problems in mind, it is also true that online coursework cannot replace clinical experience and hands-on patient care. Students have a duty to themselves and to their future patients to seek out the best clinical training possible, even in times of crisis. Removing medical students from clinical settings would be a disservice to us as future clinicians as well as to currently overworked residents physicians and nurses. There is no substitute for direct observation. Although teaching medical students creates an additional stressor on healthcare providers, medical students can still learn by observing how physicians react to clinical situations. Although there is no way to negate shortages in PPE, medical students should still be utilized in areas where PPE is not required—such as seeing unexposed patients in the outpatient setting, or seeing patients in a telemedicine format. Finally, allowing medical students who are willing and able to care for patients during this pandemic reinforces values upon which the practice of medicine is centered, such as “altruism, service in times of crisis, and solidarity with the profession” (Miller et al. 2020).

Decades from now, when I am asked what it was like attending medical school in the SARS-CoVid-2 pandemic, I want to be able to say that I was effective. I want the chance to learn and observe how clinicians are adapting to a style of patient care that is new and challenging and ever evolving. Future physicians are being formed by healthcare providers reacting to and adjusting patient care in times such as these. It is impossible to predict exactly how this will impact future patient care, but many medical students including myself take pride in how we have come together and realized the need for adaptability.

The United States is fortunate in that our healthcare system has not yet experienced an overwhelming SARS-CoVid-2 patient surge that would require healthcare rationing (Goss et al. 2020). SARS-CoVid-2 still laid bare some of the ugliest inadequacies and disparities of our healthcare system, but it also highlighted the ability of our healthcare professionals to rise to the occasion and address these problems with intent to change. This willingness to adapt to identifiable needs has resulted in adjusting healthcare rationing policies that acknowledge the disabled community. As one medical student wrote during the 2003 SARS outbreak in Hong Kong, “I learned the true meaning of duty, dignity, discipline and dedication” (Patil and Yan

2003). This pandemic has already forever changed medical education. The impact of SARS-CoVid-2 pushed medical students to integrate practices such as resourcefulness and communication in novel ways. We are reaching out to vulnerable populations in our own communities and helping people like my sister. Although medical students are non-essential workers at this point in our training, we are the clinicians of the future. We need to learn how healthcare professionals practice medicine in times of crisis, should a disaster of this scale strike again within our lifetimes.

Note: I have been granted consent from my sister to discuss some details of her medical condition. Some names and identifying details have been changed to protect the privacy of my sister and other individuals.

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