Educating ethically during COVID-19

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Abstract

One of the perplexing features of an infectious disease is the damage it causes, not only to physical health, but to mental health and to social relationships. This tension between the separation that is required for safety and the human need for contact is especially felt by institutions of higher education. Many such institutions not only educate students but seek to foster the kinds of communities which have thrived on personal interaction and shared physical space. Different institutions have responded to COVID-19 and its impacts on their members differently. Given that the spring semester will begin months before COVID-19 vaccines are widely available, we offer seven recommendations and argue that for a university, college, or other similarly situated educational institution to ethically respond to the pandemic, it must follow these recommendations. These recommendations are grounded in both scientific research and ethical analysis. Proper ethical analysis, which is necessary for the implementation of good policies, cannot be accomplished without an evidence-based grounding. After describing features of the virus and the situation that faces higher education institutions, in general, we turn to a detailed discussion of transmission. We discuss interventions available to institutions, including masking, hygiene, barriers, and testing and surveillance. Our recommendations are supported by an ethical analysis reliant on four themes: expertise, planning, stewardship, and dignity.

Keywords COVID-19 · Education · Ethics · Virology · Return to campus · College · University

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I. introduction

One of the perplexing features of an infectious disease is the damage it causes, not only to physical health, but to mental health and to social relationships. The pandemic forces an irony upon us, as noted by ethicist Dr. Richard Kim, in that to respond to it well, we must distance ourselves from others when it is exactly personal interaction that interdependent beings like humans need (Kim 2020).¹ This tension between the separation that is required for safety and the human need for contact, engagement, friendship, and fellowship is especially felt by institutions of higher education (IHEs). Many such institutions not only educate students but seek to foster the kinds of communities which have thrived on personal interaction, shared physical space, and faculty, staff, and students working in close proximity to each other.

Though different institutions have responded to COVID and its impacts on their members differently; in this paper, we argue in favor of nine recommendations for all IHEs. These recommendations are grounded in both scientific research and ethical analysis. Proper ethical analysis, which is necessary for the implementation of good policies, cannot be accomplished without a firm, evidence-based grounding. After describing features of the virus and the situation that faces higher education institutions, in general, we turn to a detailed discussion of transmission. We discuss interventions available to institutions, including masking, hygiene, barriers, testing, and surveillance. Our recommendations are supported by an ethical analysis reliant on four themes: expertise, planning, stewardship, and dignity.

Background

Grounding an ethical analysis in evidence requires an understanding of “facts on the ground.” SARS-CoV-2, the causative agent of COVID-19, emerged from China in the later months of 2019 (Dhillon et al. 2020; Huang et al. 2020; Wang et al. 2020; Wu et al. 2020). The virus rapidly spread throughout the world with well over 70 million global cases as of December of 2020 according to the COVID-19 Dashboard by the Center for Systems Science and Engineering at Johns Hopkins University (Dong et al. 2020). Infection with SARS-CoV-2 has a variety of effects on a person. Infections can range from asymptomatic to serious damage to the lungs and cardiovascular system resulting in an unacceptably high infectious fatality ratio several fold more deadly than seasonal influenza viruses (“COVIDView Weekly Summary” 2020; Hafiane 2020; Huang et al. 2020; Nishiura et al. 2020; Oran and Topol 2020; Pascarella et al. 2020; Petersen et al. 2020; Rothe et al. 2020). Controlling the spread of SARS-CoV-2 has not surprisingly proven difficult as many aspects virus transmission and even its basic processes inside a host cell have yet to be fully characterized.

Coronaviruses are positive, ssRNA enveloped viruses known to cause a variety of human and animal diseases (Brian and Baric 2005). Prior to the 2003 SARS-CoV-1 pandemic, coronaviruses were thought to cause mild respiratory ailments in humans

¹ Kim, R, “Today and Tomorrow: Prioritizing the Present in the Time of COVID-19,” panel by Bryan Pilkington, COVID Ethics Series, March 31, 2020, audio, 1:05:09, <https://library.shu.edu/COVIDethics/present>.

such as signs and symptoms associated with the common cold. However, SARS-CoV-1 and the subsequent MERS-CoV demonstrated that coronaviruses were capable of causing significant human mortality (Fung and Liu 2019). The risk of a new coronavirus emerging has been known since 2003.² For the current SARS-CoV-2, the exact sequence of events is still unknown.³ Regardless, once selection occurred that allowed the viral Spike protein to bind the Human ACE2 Receptor, the virus rapidly spread throughout the human population (Andersen et al. 2020; Wu et al. 2020; Zhou et al. 2020). Emergence of a SARS-CoV-2 variant with a D614G substitution in the Spike protein further increased viral fitness by producing higher viral titers in the upper respiratory system resulting in increased transmissibility (Korber et al. 2020; Plante et al. 2020).

With no vaccine and no proven antivirals, efforts to contain the virus have seen various degrees of success. While many Asian countries have managed to mitigate the spread of SARS-CoV-2, other countries have struggled to contain the spread with numbers of cases surging in both Europe and the United States. While nonpharmaceutical interventions such as masking, social distancing, testing, and contact tracing have proven successful to reduce transmission, all of these measures rely on substantial human compliance that has proven very challenging in the United States. Some of the reluctance of U.S. citizens to follow public health guidelines no doubt stems from the significant economic toll COVID-19 has taken on the country (Wright et al. 2020).

Prolonged lockdowns designed to reduce the spread of the virus have taken a substantial toll on colleges and universities in the United States.⁴ Several IHEs, especially those that are tuition-driven or rely on room and board to cover expenditures, have been forced to shutter their doors while others have taken draconian measures such as furloughs of employees, elimination of tenure track lines, and closures of entire departments or programs to reduce the financial burden on IHEs.⁵ All of these measures have had a tremendous negative impact on faculty morale, student education, long-term financial health of some IHEs, and the mental health of students (Aucejo et al. 2020; Son et al. 2020). Therefore, even as COVID-19 cases continue to spike in the United States, many IHEs feel the financial pressure to offer at least some degree of in person classes and to continue to allow students to stay in the dorms.⁶

Despite the increasing numbers of cases on campuses, IHEs may feel pressure to retain an on-campus presence. This pressure is not only financially driven but can be rooted in a duty to provide students in-person education. Courses that require significant hands-on training, such as laboratory classes, are not easily taught remotely. Further, college classes that discuss difficult social topics are not easily moved to online platforms. When IHEs offer in-person, the bar to provide enough measures to prevent

² Bats harbor numerous SARS-Like CoV that can jump from the bat to a person under the right circumstances. In the case of the original SARS-CoV, this event involved transmission through an intermediate host, the masked civet cat.

³ SARS-CoV-2 is closely related (96% identical) to a bat coronavirus called bat-RaTG13 which infects *Rhinolophus sinicus* (Andersen et al. 2020).

⁴ IHEs are not the only institutions that have been affected. Businesses, such as restaurants, that rely on in person transactions have been hit especially hard with many being unable to adapt to reduce capacity.

⁵ For example, consider (Carslon 2020).

⁶ While some IHEs have reduced the number of students in the dorms substantially, others have packed several students in a dorm throughout the semester as cases in IHEs continue to increase.

new cases is high and slow pivots or refusals to move to remote instruction can have a devastating impact on students, faculty, and staff, their families, and members of their communities.

Transmission

Transmission of the virus should be the primary concern of IHEs.⁷ Given that SARS-CoV-2 has existed for less than one year in the United States, there is a substantial amount of uncertainty regarding the virus. Indeed, the transmission of the virus from person to person is still being described. However, it is generally agreed that the virus can be spread by three main routes including respiratory droplets, aerosols, and via fomites.

Respiratory droplets

Respiratory droplets are thought to be the major source of transmission (Wiersinga et al. 2020). These are large droplets expelled from a person who is infected with SARS-CoV-2 that are generally thought to fall out of the air within about 6 ft. However, it is worth noting that depending on the activity of the person, these droplets could be projected much further. Coughing or sneezing can blast these respiratory droplets well past the six feet distancing guidelines as can activities such as shouting or singing. A person would become infected when they inhale the respiratory droplets from the infected individual although the infectious dose of SARS-CoV-2 is not well described. Current evidence suggests that a person must be in contact with someone who is SARS-CoV-2 positive for approximately 15 min (Wiersinga et al. 2020). However, that contact does not have to be sustained, and therefore, it is now believed that it is easier to acquire the virus than was once previously thought. This should alert IHEs to focus on the spaces within their institutions. Inside the classroom, the risk of infection by respiratory droplets can be reasonably well controlled by following mask mandates, proper physical distancing, and controlling the flow of students to and from classrooms.⁸ With these measures in place, the risk of transmission of SARS-CoV-2 via respiratory droplets can be significantly reduced in the classroom. In IHEs, transmission from person to person would most likely occur between students as they congregate in dorms, small or large social gatherings, and during shared meals.

Aerosols

Both the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC) have recently added aerosols as possible routes of transmission for

⁷ Some IHEs involved in significant viral research may add a co-primary concern of working toward a vaccine, but their primary obligations, in this realm, remain ensuring the safety of the educational experience for students, faculty, staff, and members of the broader communities of which they are a part.

⁸ Indeed, in a traditional lecture where students are spread out, the only person typically talking for long periods of time is the professor. Discussion groups would increase the risk of transmission if students were talking to each other or the professor for extended periods of time in the classroom, even while wearing masks, which work to trap some of the large respiratory droplets.

SARS-CoV-2 (“Coronavirus disease (COVID-19): How is it transmitted?” 2020; “Scientific Brief: SARS-CoV-2 and Potential Airborne Transmission” 2020). The virus is well established to be viable in aerosols for at least 3 h (Van Doremalen et al. 2020). Small particles containing the virus can remain airborne and coronaviruses in general survive better in conditions related to the winter, which causes more concern for aerosol transmission during the winter months. (Aboubakr et al. 2020; Van Doremalen et al. 2020). While droplet transmission is believed to be the major route of transmission, the CDC recognizes aerosol transmission can occur in enclosed spaces and with extended exposure to particles containing the virus through activities such as shouting, singing, or exercising. In addition, poor ventilation in a room compounds the risk of aerosol transmission (“Coronavirus disease (COVID-19): How is it transmitted?” 2020). Therefore, it is reasonable to speculate that the more SARS-CoV-2 positive people in a classroom, the larger quantity of aerosols generated; and, therefore, the greater the risk of infection.

Transmission by aerosols is very difficult to mitigate, especially inside small classrooms where there might exist multiple SARS-CoV-2 positive individuals. Masks can help reduce transmission of the virus but cannot block all virus emitted through aerosols (Ueki et al. 2020). However, it is important to point out that even though masking may not stop all SARS-CoV-2 transmission, masking is efficient in at least reducing transmission and works best if both infected and uninfected individuals properly wear the masks (“Scientific Brief: Community Use of Cloth Masks to Control the Spread of SARS-CoV-2” 2020; Ueki et al. 2020). Without the ability to regularly turn over the air inside a classroom, SARS-CoV-2 containing aerosols may remain suspended for a substantial amount of time leaving the people inside the room vulnerable. Mitigating the risk of acquiring the virus via aerosols in the classroom could be reduced provided that:

- 1) the number of people remains small
- 2) The windows can be open to allow increased airflow
- 3) The rate of airflow has been measured to ensure that the filtration system is rapidly passing the air through the filters.

IHEs must remember that HVAC systems in many classrooms were not designed to combat a virus, and are therefore, likely unable to meet these objectives without having had the effort made to quantify the airflow.

Contact transmission

Spread of SARS-CoV-2 via respiratory droplets remains the most significant risk of infection (Wiersinga et al. 2020). However, coming into direct physical contact with a person who is positive with SARS-CoV-2 is also recognized as a risk as is contact with fomites. Fomites are inanimate objects carrying infectious material. Some of the early work on the virus described its ability to remain infectious on surfaces for several days depending on the type of material (Van Doremalen et al. 2020). While this and other studies were vital in understanding the virus, it should be noted that detection of viable virus on these surfaces after several days most likely represents ideal conditions. In addition, SARS-CoV-2 RNA has been detected on a variety of surfaces in hospitals

(Chia et al. 2020; Wiersinga et al. 2020). However, it is important to note that while the viral RNA is detectable, that does not mean that the virus itself is infectious. As Emanuel Goldman has pointed out many of the lab studies started out with high viral titers, and therefore, may not be the best representation of risk during fluctuating conditions in the real world (Goldman 2020). This observation is supported by a recent study where swabs of patient fomites failed to infect Vero E6 cells (Colaneri et al. 2020; Mondelli et al. 2020). Despite fomite transmission being the least likely way to acquire SARS-CoV-2, IHEs have plunged significant financial resources into excess cleanings of classrooms. While the need to clean and eliminate the risk of fomite transmission, even if it is relatively low, is understandable, this can only be ethically justified if the investment of financial resources does not come at the expense of other methods to prevent the spread on campus (e.g., testing and surveillance).⁹ To satisfy obligations of stewardship, as noted below, the best practices at IHEs, and out of an overabundance of caution to guard against fomite transmission, should be to simply wipe down with a bleach solution the surfaces touched by students in between classes.¹⁰

Interventions

Masking

Within the last 10 years, increasing evidence has demonstrated that nonpharmaceutical interventions such as mask usage can be effective in reducing the spread of virus.¹¹

In the initial months of the pandemic, the viability of masking as a control method for preventing SARS-CoV-2 spread was unknown; however, as the pandemic progressed, the public health thinking regarding masking as a viable means to control virus infection began to shift (“Scientific Brief: Community Use of Cloth Masks to Control the Spread of SARS-CoV-2” 2020). Subsequent studies demonstrated that while not all masks could effectively filter all virus particles, masks were effective in reducing the spread especially if the masks were utilized by someone infected with SARS-CoV-2 (Ueki et al. 2020).

⁹ Indeed, students are most at risk of infection by touching a door handle or sitting at a desk previously occupied by another student who is infected and shedding virus immediately after the infected student touched or expelled respiratory droplets on the surface. Most cleaning that we have seen occurs at night after the students are at home and when the virus is likely decaying on the surface. To be most effective, surfaces should be cleaned immediately in between classes by wiping down surfaces and door handles.

¹⁰ There are other theoretical means to spread the virus have been described. It is well known that the virus can be shed via feces. Therefore, fecal oral transmission has been proposed, though there have not to our knowledge been any definitive case that has demonstrated this mechanism of transmission. Further, it seems unlikely given that the stomach acid would rapidly inactivate the virus. However, one cannot rule this out entirely as other coronaviruses are well known to cause gastrointestinal diseases in animals. Shedding the virus via feces also raises the possibility that flushing the toilet might generate aerosols. Therefore, some have suggested, and again out of an abundance of caution, that the ventilation in public bathrooms should be properly measured. Further, bathrooms should be cleaned regularly, and during the day when the students are here to guard against this possible means of transmission.

¹¹ Some initial work involved studies where influenza spread observed to be limited in households where mask wearing was employed. Indeed, much of our understanding of how mask usage can reduce virus infection has involved work and models involving influenza (Davies et al. 2013).

Unfortunately, mask usage has been very problematic in the United States despite the evidence masks are effective at reducing community spread. While many Universities have adopted mask usage policies, most do not enforce the type of mask. Given that not all face coverings provide the same degree of protection, policies designed to reduce spread should acknowledge that N95 respirators and surgical masks are far superior to neck gaiters (Lindsley et al. 2020).

Even after a vaccine is approved, masks will be an important aspect of college life for the foreseeable future until enough of the population can be vaccinated. Maintaining mask compliance both in the United States and in the nations institutes of higher education will be an important part to control the transmission of the virus on college campuses.

Hand hygiene

Another safety precaution to prevent the spread of the coronavirus in IHEs is frequent hand washing. The CDC recommends that one washes their hands with soap and water whenever possible (“Hand Hygiene Recommendations Guidance for Healthcare Providers about Hand Hygiene and COVID-19” 2020). While it is currently unknown exactly how much frequent hand washing contributes to preventing community spread of SARS-CoV-2 from direct contact, the CDC recommends hand washing and use of hand sanitizer with at least 60% alcohol may also to prevent the spread of coronavirus (“Hand Hygiene Recommendations Guidance for Healthcare Providers about Hand Hygiene and COVID-19” 2020).

Physical barriers

Universities have implemented physical barriers throughout campus to enhance social distancing. These barriers typically consist of plexiglass distributed throughout the campus in classrooms, cafeterias, and any other areas groups of people may be located in. The purpose of keeping students and faculty separated by plexiglass is to prevent large respiratory droplets from spreading from person to person. However, while physical barriers may prevent direct contact with large droplets from a virus spreader, the barriers on their own are not likely to be effective in preventing aerosol transmission. Further, from our own personal experience, the barriers in front of the classroom significantly impede students’ ability to see the board, and in many cases the barriers are simply moved out of the way. In addition, these barriers are typically small and only block a small region of the room.

Testing

In addition to enforcing masking policies, physical barriers and cleaning testing and surveillance are critical strategies to reduce the chances of an outbreak in IHEs(CDC). Current CDC guidelines stress the importance of testing and rapid contact tracing. However, testing for asymptomatic cases for surveillance on campus is still left to the discretion of each IHE and local governments (“Testing, Screening, and Outbreak Response for Institutions of Higher Education (IHEs)” 2020). As a result, each IHE has different frequencies in terms of testing. Despite the importance of regular SARS-

CoV-2 surveillance on campus, many IHEs lack the financial resources to frequently test the student populations. Unfortunately, without the ability to conduct significant, frequent testing of the entire campus population, it is difficult to prevent outbreaks as the majority of asymptomatic cases will be missed. Paltiel et al. utilized a hypothetical college campus to observe different frequency rates of testing students and how this impacts the spread of the virus.¹² These results emphasize that testing once a week is not enough and allows the amount of positive cases on campus to skyrocket. The importance of this experiment is that it is not the sensitivity of the test that is important, but it is the frequency of testing coupled with strict guidelines that will slow the spread of the virus. Due to budget related issues, most college campuses are not testing as frequently as every 2 days, which ideally, is the best method for keeping a college campus open during a pandemic. With the lack of frequent testing and strict protocols, it seems college campuses are failing to properly combat COVID-19 even though they are obeying CDC guidelines.¹³ Many college campuses are relying on only testing students who were exposed to the virus or who have symptoms, which is simply not enough to slow the spread of the virus. The coronavirus is known for spreading rapidly due to its asymptomatic victims so it is recommended to frequently test all students.¹⁴ The significant risk of asymptomatic spread brings into question whether college campuses should even be open in the first place if they do not have the financial ability to provide not only testing for those exposed to the virus, but for each student on campus at frequent points throughout the semester.

Many IHEs urge students and faculty to utilize applications for symptom tracking; however, it is unclear how religiously and honestly students utilize these applications, ultimately leading to this method being ineffective and making some feel uncomfortable regarding privacy. Similarly, many universities have asked their students to take a pledge in which they agree to do everything in their power not to contribute to the spread of the virus, but again, these pledges come across as more of suggestions than rules, leading to ineffectiveness, especially when it comes to young college students.

There are major breakdowns in university policy's, especially involving quarantining on campus, which have added to the number of students at risk for infection. Students from numerous campuses have reported being sent back to their dorm to wait for test results, quarantining with students that tested positive before getting test results

¹² This experiment tested students either every 1,2,3, or 7 days in order to determine which frequency would be the most efficient and cost effective. Each hypothetical cohort included 5000 students, which included ten with asymptomatic infection at the beginning of the semester. This experiment points out the significant difference in the results between testing every two days and every seven days: "Screening every 2 days resulted in 243 cumulative infections and a mean daily isolation census of 76, with 28 students (37%) with true-positive results. Screening every 7 days resulted in 1840 cumulative infections and a mean daily isolation census of 121 students, with 108 students (90%) with true-positive results," (Paltiel et al. 2020).

¹³ Elissa Nadworny and Sean McMinn's article, "Even in COVID-19 Hot Spots, Many Colleges Aren't Aggressively Testing Students," points out that studies conducted by the NPR have shown that initial CDC guidelines have allowed college campuses to do the bare minimum of testing. This is seen when Nadworny and McMinn state, "Of colleges with in-person classes and more than 5000 undergraduates, only 25% are conducting mass screening or random "surveillance" testing of students. Only 6% are routinely testing all of their students. Most, instead, are relying on only diagnostic testing of symptomatic students, which many experts say comes too late to control outbreaks and understates the true number of cases," (Nadworny and Sean 2020).

¹⁴ Given that roughly 40% of SARS-CoV-2 cases may be asymptomatic, testing the campus population frequently is required for the safe opening of IHEs (Nadworny and Sean 2020).

back, and a lack of supervision and aid in isolation (Singer 2020). Once a student is exposed to the virus, it is more efficient to isolate them in a quarantine area that is not shared with others to account for the possibility that the student may not have the virus, which will ultimately slow the spread.

Natasha Singer's article in the New York Times, "Breakdowns in Policy on College Campuses Leaving Some at Risk," points out the main flaws in many universities policies that are contributing to the spread of the virus (Singer 2020). Singer speaks to students from several different universities with firsthand experience of the imperfections that exist in university polices and ultimately put the students, faculty, and staff at risk. A perfect example of the loop holes in the guidelines is seen when Singer states, "At Iowa State University, which has reported more than 1,200 cases, a student who was waiting for his Covid-19 test results said he was sent back to his regular dorm room where he could have infected his roommate(Singer 2020)" In another breakdown of policy, "At Tulane University, several students with possible virus symptoms or exposures said the school had transferred them to a dorm with quarantine and isolation units where they shared suites and bathrooms – housing conditions that they worried could foster infections" (Singer 2020). From Singer's article, it is clear that many universities are making efforts to test their students, however, many of their lenient tendencies are countering their efforts to slow the spread of the virus. Once a student or faculty member is exposed to the virus, it would be more efficient to isolate them in a quarantine area that they do not share with others. This practice considers that just because a person was exposed to the virus, it does not mean they have contracted the virus. Therefore, they should not be put at an even greater risk and be quarantined with someone who may have the virus or does have the virus because this increases the spread.

Although many universities are struggling to contain the coronavirus, a few have excelled in testing. Using a rapid saliva based PCR test generated in house, the University of Illinois regularly tests it's student, faculty, and staff on a weekly basis (Ranoa et al. 2020). Other Universities have tested sewage of dorm buildings to better prevent outbreaks. This method has proven to be extremely successful in locating where positive cases on college campuses may be and gives universities a chance to quarantine students before an outbreak occurs.¹⁵ Although waste water surveillance is not mandatory, it is something that has extreme benefits regarding the containment of COVID-19 and college campuses should consider utilizing this method along with other frequent testing and stricter guidelines in order to appropriately protect their students, faculty, and staff.

¹⁵ The academic journal, "Making waves: Wastewater surveillance of SARS-CoV-2 for population-based health," highlights the benefits of performing wastewater surveillance, which include affordability and measuring changes in viral circulation. Wastewater surveillance can be extremely helpful in determining whether or not a university is adequately testing their students: "However, if wastewater-based estimates of infection prevalence are significantly higher than indicated by clinical reporting, this provides an early warning of increased transmission potential, and policy makers may consider implementing more significant measures to protect public health,"(Thompson et al. 2020).

Recommendations

In light of the preceding discussion, we highlight here a list of nine key recommendations for IHEs in order to move forward ethically during the pandemic:

1. Adopt and enforce masking policies, hand washing, and physical distancing practices; *Note that masking policies should include the type of mask that is permissible to participate in classroom activities.*
2. Frequently test during the semester for all students (residents and commuters), faculty, and staff; consider sewage surveillance and pool testing as a means to determine additional testing needs.
3. Monitor and improve ventilation for all classrooms to maximize the effectiveness of masking and physical distancing practices.
4. Regularly clean classrooms, laboratories, and similar spaces to eliminate possible transmission by fomites.
5. Wherever possible, grant students and faculty remote classroom engagement options.
6. Provide adequate quarantine space for resident students, as well as safe access to food, tests, and health information.
7. Fully and clearly inform relevant members of the IHE community of all COVID-19 cases that occur on campus in a timely fashion, including informing members of a class, of any positive case occurrences (in a deidentified manner); potentially exposed faculty, staff and students should be rapidly tested.

Ethical themes

Four ethical themes ground these recommendations: deference to expertise, the duty to plan, attention to stewardship, and respect for the dignity of members of educational and surrounding communities. We take up each theme in turn.

Expertise

Deferring to expertise is necessary but can pose challenges for institutions of higher learner. Challenges can arise because such institutions are complex and have a variety of stakeholders, operating from a variety of disciplines, who may have varying interests relative to institution. However, institutions of higher education are required to pay special deference to expertise and to proper expertise, and this includes responding to a pandemic situation like COVID-19. These institutions are often well placed in relevant areas of expertise and of proper expertise. Many have excellent scientific researchers to draw on, e.g., virologists studying COVID-19 or similar viruses, physician and nursing faculty caring for patients afflicted with COVID-19, and ethicists, health policy experts, and social scientists thinking through broad public health policies and particular institutional practices related to the pandemic.

Thus, these institutions are required, as institutions of learning, to pay attention to expertise and, in particular, to proper expertise. Failing to do so raises questions of an existential nature about such institutions, as well as opens the door to question the

legitimacy of the institution. This is because such institutions are both repositories of knowledge and also places where research advances and future professionals are taught.¹⁶ To borrow a bad analogy from those who think education is a commodity: *if you're not using what you are selling, why should anyone else buy it?* If expertise is not heeded, how can such institutions avoid hypocrisy?

Institutions of higher education create and foster expertise and so it is necessary that they not only defer to experts, but that they defer to proper experts. In their classic work on the nature of expertise, Chi, Glaser, and Farr describe seven key characteristics of experts. The first is that “Experts excel mainly in their own domains” (Chi, Glaser, and Farr, xvii) and the seventh is that “Experts have strong self-monitoring skills” (Chi, Glaser, and Farr, xx) (Chi et al. 2009). Reflection on these characteristics helps to draw the boundaries around proper expertise. Not everyone is an expert and merely because one is an expert or an authority in an area or on a particular subject does not mean that this translates into other areas or other subjects. This boundary is reinforced by the restriction on experts to be self-monitoring. Experts themselves, and even groups of experts must be cognizant of this and avoid infringing upon the scope of practice of other professions or, more accurately, of areas of expertise outside of their own scope of practice.¹⁷ Consider, e.g., the numerous discussions of the Goldwater Rule relative to the President of the United States’ response to the COVID-19 pandemic and, more generally, what was considered by many to be erratic behavior. The Goldwater Rule provides requires restraint of psychiatrists in commenting on presidential candidates’ fitness for office, according to the American Psychiatric Association. (APA) (Levin 2016). The rule traces back to discussions, in 1964, of the presidential candidate Barry Goldwater’s mental health. Though a variety of concerns can be highlighted from these discussions, foremost among them for our purposes is the concern that psychiatrist step outside of their scope of practice in weighing in on a question about the fitness of a candidate to lead. A related issue is the practice of diagnosing from afar within the standard sorts of engagement with the patient.

Understanding who is a proper expert, and in the case of the complex health, social, and economic challenges that COVID-19 brings, who *are* the proper experts is not always easy. As David Shribman writes, “Even though expertise is the means by which we separate fact and truth from emotion and myth, emotion and myth are sometimes far more powerful and enduring than these rivals” (Shribman 2019). Thus, leaders of IHEs must heed proper expertise, which can often be found within their own institutions.

For IHEs, deference to proper expertise is necessary for an ethically-grounded response to the pandemic; this includes taking seriously (and in most cases implementing) the best practices recommended by internal experts, such as virologists, physicians, nurses, public health practitioners, and communications specialists. It is the case that a variety of considerations must be balanced in creating a plan to strategically respond to the COVID-19 pandemic, the theme to which we turn next, but failing to take seriously internal expert is a fatal flaw.

¹⁶ In so doing IHEs uphold a necessary features of the professions represented there. For one account of professions which holds this view, see the work of Allen Buchanan (2009).

¹⁷ For a discussion of the importance of self-regulation of professions and of the potential threats from external forces in response to failures of self-regulation, see Buchanan (2009).

Planning

The duty to plan is a well-entrenched, though not as often appealed to, principle in bioethics. This principle received much discussion at the early stages of COVID-19 in the US, with most of that discussion around concerns of resource scarcity and of the potential invocation of Crisis Standards of Care within healthcare institutions.¹⁸ Though IHEs are not health care delivery organizations (HCOs), it is incumbent upon them to plan for future eventualities in virtue of the communities they serve; that is, they owe proper planning to the members of their community and to the members of those communities in which their institution is embedded. HCO best practices with respect to this duty root that planning in key principles associated with crisis standards of care. In a similar way, IHEs ought to root their planning in relevant principles. In addition to the broad requirement to engage proper expertise, our third and four ethical themes give content to such principles. Implementation of our seven recommendations, embedded in continuing conversations with experts and revisions with an eye toward future waves, spikes, and scenarios is an example of an IHE taking seriously its duty to plan.

Stewardship

IHEs, like HCOs, possess and need and a duty to carefully steward resources. This is not as simple as merely stockpiling instructional and other supportive resources nor does it necessarily mean reducing faculty, staff, and administration. IHEs which properly attend to their duty to steward resources must balance risks to the members of their communities and to future challenges to successfully execute their mission. This requires careful and clear practical reasoning by leaders from various areas of the institution to move forward with a plan that puts a particular institution in a particular set of circumstances on a viable path forward. Leaders must reckon with the weighty reality, as they try to achieve equilibrium in balancing various risks and benefits, that institutions do not have a (moral) right to exist. Persons do; institutions do not. This fact is an important reminder that creativity is needed in satisfying duties to plan in challenging situations like the COVID-19 pandemic because institutional leaders are charged – were it to come to this – with prioritizing persons, and especially members of their communities, over the future existence of the institution that serves those members.

This is a strong and potentially controversial claim. It is supported by two considerations; the first is related to the aforementioned existential consideration, the second is addressed subsequently. In order to satisfy their missions and discharge their obligations rooted in research and teaching, it is necessary for IHEs to have faculty, who teach and research, and students (who engage with faculty in the related pursuits of learning and research). Persons make up these institutions and these institutions' missions are directed toward the collaborative pursuits of teaching and learning, their *raison d'être* would disappear if there were no students and teachers. This reflection should recommend a policy of prioritizing members of these learning communities over other factors or, at least, giving significant weight to them. The second point in

¹⁸ Though important this discussion is outside the scope of this paper. For a full treatment of this discussion, see Hick et al. (2020).

support of this claim is not rooted in the relationship between institutions and persons, but rather in the nature of persons; which we take up in the next section.

Dignity

Though there are a variety of ways to think about members of communities and a variety of ethical concepts in which a prioritization (or heavy weighting) of members of communities could be supported – e.g., rights, liberties, respect for autonomy, justice, et cetera – for the purposes of IHEs, we find the concept of dignity to be the most useful. Though the concept and the normative implications for taking it seriously have both been described in different ways, we focus on two features of one account of dignity (Pilkington 2016), which highlight that respecting the dignity of a community member – and for our purposes, the member of a community which the IHE serves – requires avoiding the humiliation of those members and also affording those members the necessary opportunities in virtue of the kinds of beings that they are. That is to say that when members of learning communities are humiliated or denied certain opportunities, their dignity is violated.

In particular, the prohibition on humiliation for IHEs during COVID-19 requires that sensitivity and care to be taken with personal information, including any contact tracing, personal health information, class membership information, video and audio requirements in class meetings for all members of communities. For example, consider the potential need to share personal health information. Though this should not be shared, if a situation arises in which positive cases or reported exposures have occurred, some information must be shared with some members of the community who might come in contact with the person both for their good and the goods of public health. Attending to anti-humiliation feature of dignity, recommends sharing the least amount of information with the fewest number of others. In the most common case, suppose a student is exposed to COVID-19. The instructor of a course which meets in person should be alerted, in advance of the class meeting, that there is a positive case or a case of exposure. The information must be deidentified and the instructor need not know any more information that the existence of a potential case in her class. This approach safeguards the information of the student and protects members of the community, as the instructor may opt for an online interaction or increased care – relative to the resources of the particular institution. Institutional health officials may recommend to the student that she not attend class – and surely she should not – and she may elect to share this information with the instructor or others, but as she should not be forced to do so due to humiliating features that can be – even if inappropriately – associated with particular health data, this is the best option. This is also the case with respect to class video/audio policies. Avoiding potentially humiliating situations for students is required by a respect for their dignity. This means avoiding, wherever possible, mandates to be on camera throughout a course unless spaces have been provided or can be assured. In light of the switch to remote learning, which many IHEs made in response to COVID-19, the space in which students are “in class” has changed and special attention must be paid to this fact. It may be the case that for a particular assignment – a presentation – that this is not possible; it is also likely the case that this may not be possible for all members of the class; e.g., the course instructor, due to the nature of her role. This approach supports the aforementioned recommendations and highlights the

importance of clear communication and transparency regarding health situations on campuses, relevant analyses by proper experts, and sensitivity to fear regarding the virus.

In addition to the avoidance of humiliation, attending to the theme of dignity requires the affirmation of opportunities for IHEs during COVID-19. This includes ensuring that all members of communities have opportunities connected to and rooted in their particular roles as part of the learning community. This may mean offering options for remote course engagement, remote working options, flexible hours in light of common alterations to other obligations satisfied by members of the IHE. For example, IHEs should support flexibility in course timing to allow instructors, students, or staff to care for children or parents in light of changes to daycare or in-home assistance.

Conclusion

IHEs and their members must attempt to alleviate the tension between COVID-dictated needs for separation and educational needs for interaction. They can do so by mandating mask-wearing, gathering for limited time, physically distancing, exploring open-air locations and optimizing ventilation in indoor spaces. In following our seven recommendations, IHEs will be better placed to offer educational engagement in an ethically-grounded manner, and to mitigate risks and reduce costs so that we can be human, safely. How particular institutions and their members decide what are acceptable costs and risks, what resources to allocate, and what safety concerns to focus on will depend on the particularity of each institution. However, institutions of higher education cannot shirk their responsibilities in responding to COVID-19 and this, we have argued, requires paying attention to experts, respecting institutional member dignity, and allocating time for proper planning and resource stewardship. The broad question that faces educational institutions is, borrowing from T.M. Scanlon's famous treatment of the subject, "What do we owe to each other?" The answer requires reflection on and engagement with a variety of community members, institutional constituents, and an awareness of the members of our overlapping communities – faculty, staff, students, administrators, and also local residents, town, state, and national partners, in order to moved education safely forward in the time of COVID-19.

Compliance with ethical standards

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

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