

How Academic Medicine Can Amplify Truth Amid the Noise of Misinformation, Inaccuracies, and Lies

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Abstract

Inaccurate statements and lies from public figures and political and government leaders have the power to exacerbate dangerous upheavals in our political, health care, and social environments. The widespread misinformation, inaccuracies, and lies about the COVID-19 pandemic (about the origin of the virus, the severity of illness, vaccination, and “cures,” to name a few) illustrate the potentially disastrous consequences of false information. Academic medicine must recognize the dangers of such lies and inaccuracies, particularly those related to health, and must understand their sources in traditional and social

media and how and why many in the public accept them. Academic health professionals have a unique responsibility to promote and defend the truth in medicine and science, help the public to understand the sources of inaccurate scientific information, and find ways to debunk falsehoods spread by politicians and media outlets. Inaccurate information and lies have threatened the health of the population, the function of health systems, and the training of the future health workforce. They must be combatted by truth telling through scholarly work, clinical activities, and educating health professions trainees at all levels.

Academic medicine’s institutions should also consider joining the communities they serve and their medical specialty organizations to engage in political advocacy whenever possible. Health professions journals have an important role in highlighting and clarifying important topics and sustaining conversations on them within the academic medicine community. Across all its missions and activities, academic medicine must do its best to combat today’s poisonous misinformation, inaccuracies, and lies, and to enter the larger social and political struggles that will determine the health of society and the future.

As I watched the occupation of the U.S. Capitol unfold on January 6, 2021, I felt deeply shocked, but it was the lies and misrepresentations surrounding that event, which I witnessed with my own eyes, that compounded my distress. There have been accounts of how supporters of President Trump created narratives of a stolen election that were not substantiated but nevertheless inspired hundreds to storm the Capitol building that day. These accounts became known as “The Big Lie” and continue to be promoted by former president Trump and his supporters.^{1,2} I watched in horror as a mob trampled over a space that is sacred to almost all Americans and where I worked as a Robert Wood Johnson Foundation Health Policy Fellow in 2011–2012. The occupation felt like a personal violation

and a desecration of the values I thought all Americans held dear.

While I felt powerless to do anything about the destruction, I now realize that the lies and inaccurate statements made about January 6th did not occur in isolation. Since March 2020, we have endured a COVID-19 pandemic costing more than 1 million lives in the United States alone—more deaths than in any other country in the world. Part of the reason for this tragedy has been the inaccurate information given to the American public, resulting in inadequate public health preventive measures and inadequate vaccination of our population.^{3,4} I have personally encountered many patients with COVID pneumonia who had not been vaccinated, and their explanations for not being vaccinated have included fears of nonexistent dangers from the vaccine or lack of awareness about their risk of serious illness. As I have contemplated this health system failure, I cannot help but think that we in academic medicine could have done a better job of establishing ourselves as a trusted source of truth and that our failure to effectively counter the misinformation circulating in

our communities was part of the reason for the overall failures.

When the COVID-19 pandemic spread and established itself in wave after wave, I joined my colleagues in caring for the many sick victims of the virus, hoping that each surge would be the last and that public health and care delivery systems would provide guidance and care to limit the toll of the virus. As I watched the number of COVID-19 cases rise rapidly with the spread of the Omicron variant in December 2021, I realized that the numbers of infections would soon dwarf what we had seen before. In spite of many heroic efforts to end the pandemic, the finish line to this marathon had been extended down the road another 10 miles, in part because so many individuals chose not to take the vaccine because they were misled about the efficacy and safety of being vaccinated. And in spite of the accelerating surge, there were no new public health restrictions on the population where I live in Arizona nor in many other states. And as newer variants have appeared and spread through the population, even among those who are vaccinated, there has been little

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discussion about implementing steps we know to be effective based upon the experience of the past 2 years to reduce risk to those most vulnerable to the virus. It seemed that the public had given up on, or perhaps had lost faith in, the advice of the medical community and government to help them. Management of the pandemic has become a political problem rather than a health policy or scientific problem. Protection of individual freedom has appeared to triumph over public safety rather than there being an effort to find the best balance between these 2 important values. I thought of all the patients, residents, and nursing staff I had worked with since the beginning of the pandemic in the emergency department at my teaching hospital, and the unfairness to all of them—all the infections they had endured personally, the time they had lost from training—and what we, the leaders of academic medicine, might have done differently to prevent the disaster.

What Is a Lie?

Widespread misinformation can originate anywhere from a Big Lie designed to spread widely,¹ to a nascent theory such as the association of infertility with COVID-19 vaccination⁵ that is never properly debunked when new information arises. We must dig deeper to understand various types of misinformation, inaccuracies, and outright lies and how and why they spread through a population. While the definition of a lie can be complex, for the purpose of this commentary, I use the definition in Webster's dictionary of a lie as "an assertion of something known or believed by the speaker or writer to be untrue with the intent to deceive."⁶ However, it can be difficult to definitively determine what a speaker believed or intended. For those statements that are untrue but do not have clear intent to deceive, I use the terms *inaccuracies* and *misinformation*. The distinction is important because as the COVID-19 pandemic evolved, so did our advice and predictions about it including changes in treatment and use of off-label medications that could be dangerous.⁷ In other cases, inaccuracies in medical information were a natural consequence of new research information or evolution of the virus, and while such inaccuracies should be corrected promptly, delays may occur as new information is verified.

How false information spreads is complex. In some cases, such information fits previously held beliefs and is reinforced by the opinions of others in the environment. As noted by Scheufele and Krause,⁸ "insular social networks can be especially ripe for misinformation ... by decreasing the visibility and familiarity of contradictory information." Particularly vulnerable are individuals who feel alienated and powerless and have lost trust in traditional sources of information. When a lie or misinformation is embraced by groups who hold power, opposing the lie requires courage and can come at great cost. And finally there are times when information that includes inaccuracies or deceptions may be confusing or not well understood, making it difficult to effectively contradict or dismiss.

What Is Academic Medicine's Responsibility?

Fortunately, there have been some from the academic medical community, such as Leana Wen⁹ and Ashish Jha,¹⁰ who appeared on television, radio, in print, and on social media attempting to correct inaccuracies and blatant falsities about pandemic issues. But we in academic medicine need to do more. Could we have countered the dangerous misinformation about the pandemic much earlier and promoted better education to our communities on public health and disaster planning? Could we have spoken out more effectively about the need for vaccination and pushed back against the misinformation about infertility⁵ and microchips¹¹ and unsubstantiated "cures"?¹² If we had done all this, would it have made a difference? If it did not, might we have learned better ways of communicating to the public that *would* have made a difference?

I feel that many of our collective actions as academic physicians, hospital leaders, and medical educators since COVID-19 began involved a tacit acceptance of what we, instead, should have been resisting. Yet this is understandable considering the many uncertainties of coping with a new disease and the divisive political environment that health leaders faced. Ellaway and Wyatt¹³ describe how resistance in medical education should address "situations, structures, and acts that are oppressive, harmful, or unjust." They go on to say that resistance involves

"individual and collective expressions of condemnation of social harms and injustices, with the intent of stopping them." The COVID-19 pandemic has provided many examples that would fit their criteria for action, starting with the lack of personal protective equipment for residents on the front lines of the pandemic response when it began¹⁴ and continuing with the ongoing misinformation, inaccuracies, and lies contributing to COVID-19 vaccine hesitancy mentioned above. Unfortunately, I maintain that most of us in medicine, when faced with oppressive or unjust acts, tend to avoid confrontation and gravitate to what we are comfortable doing in clinical care, education, or research. But the stakes are too high these days; we must move out of our comfort zones and do our best to combat the inaccuracies, lies, and exaggerations that are harming everyone.

What Can We Do to Amplify the Truth?

How can we, as academic health professionals, create a collective consciousness to combat lies and other inaccurate information and embrace the ideals that will lead to better health for all of our community? The first step is to acknowledge the grave danger that misinformation and deceptions have created for us as a community and a nation. That danger exists because of assaults on the truth by politicians and the media, or missteps from some of our government agencies, such that too many U.S. citizens have come to doubt scientific facts and the statements of experts. As a society, we may not always agree on the solutions to the problems that we face, but we must be willing to have a process grounded in agreed-upon facts, humility, and democratic decision making. If we cannot identify areas of agreement based upon reliable sources of information (and cannot spot and spurn falsehoods), we will not be able to decide on the best policy options to address our problems. We must also be able to differentiate new information, such as the appearance and characteristics of a new pathogen variant, from the deliberate promotion or exaggeration of information known to be false.

This is where our leaders of academic health centers have important roles to play. We cannot depend solely on

individuals such as Chief Medical Advisor to the President Anthony Fauci to identify and correct false information, when a united voice with the same message could be much stronger and more effective in amplifying the truth. Our institutions could identify inaccuracies and misinformation and then state corrections if they are known. Because many of our institutions have prominent roles in their local communities and states, they could put out regular press releases, convene town halls, provide interviews on local and national media, and work with community leaders to provide information in language that would be understandable to a lay audience. At an individual patient level, health professionals could be encouraged to engage with patients about their questions and concerns during regular clinical visits with accurate information and referencing experts.

We must also recognize that when communicating with the public about science, the values and interests of the audience will influence how the information we provide is perceived.¹⁵ For example, with an audience that is concerned about vaccine complications, it would be important for us to listen to their questions respectfully and with humility. Many people in the audience will have suffered during the pandemic or may have lost family members to COVID-19. Trust between the community and medical professionals may need to be rebuilt before any clinical information can be shared and discussed. Finally, it is clear to me that as long as there are sufficient numbers of people who are susceptible to misinformation, there will be politicians and media outlets who will take advantage of them by promoting misinformation or lies, including dangerous ones that could dissuade people from becoming vaccinated, because doing so is to the promoters' advantage financially, politically, or strategically.

Our specialty societies in medicine can also play a role: they donate millions of dollars to politicians for their campaigns.¹⁶ If they refused to fund any politician who promoted misinformation, this could show that the organizations stand for truth and that there are consequences for inaccuracy,

exaggeration, and lying, particularly about health.

Since the main goal of our health system is to foster efficient, effective health care of our population, and the goals of medical education are, ideally, aligned with our health system's goals,¹⁷ health professions curricula should include an examination of both the false information that endangers our health system and also of its sources. We should also commit to teaching principles of health equity and social justice—important goals of medical education that are often weakened by misinformation and inaccuracies. Fitzhugh Mullan,¹⁸ in an Invited Commentary in this journal, described his work for civil rights in Mississippi in 1965 and how the experience transformed him and set his compass to “changing the culture of medicine, making the idea of health equity central to the character of medicine, and positioning medicine as an agent of social as well as individual healing.” These goals are just as important today, as the racial and ethnic disparities in COVID-19 outcomes painfully illustrate.¹⁹ Medical schools can have a major influence in addressing social justice and health equity by ensuring these topics are incorporated meaningfully throughout the curriculum.

Health professions journals play an important role in highlighting and clarifying important topics and sustaining conversations on them within our community. Journals can address the spread of misinformation by ensuring their processes of peer review and editorial decision making are rigorous. They must seek to publish cutting-edge scholarship that has been vetted by the community and deemed worthy of publication. When a journal publishes something that is later discovered to be incorrect or obsolete, the journal's editors should seek to correct or update the record as needed. Finally, journals can give voice to leaders and experts who can debunk false information and amplify the truth through editorials, commentaries, and letters to the editor.

We also need to bring together people, ideas, and energy and create a powerful coalition of the leaders of our institutions. Since much of the false information that concerns us involves public health, disease prevention, and the social determinants of health, such

as race, ethnicity, and socioeconomic status, we might initially focus on how to have thoughtful conversations and actions related to these topics within our own academic medicine community. Perhaps most important, our efforts to promote the truth should start in our home institutions, in our dealings with one another as colleagues in academic medicine. There should be no hidden curriculum in our efforts to push back against inaccuracies and lies.

Summing Up

I do not think we ever imagined the interconnected threats to truth, justice, and health that we now face in our own country and around the world. Many of these threats have been amplified and sustained by misinformation and deceptions. It is time for us to recognize the dangers we face, as well as our own unique responsibility as academic health professionals to combat them. Our medical schools and health systems can help promote trust with the public by standing up for truth, justice, and equity. Such actions must include political advocacy whenever possible. We must not let the difficulties keep us from staying the course and doing our best to combat today's poisonous misinformation, inaccuracies, and lies, and from entering the larger social and political struggles that will determine the health of our society and our future.

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