The Stress of the COVID-19 Pandemic: Beyond the Data

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Abstract: Background: The year 2020 will go down in modern history as the one ravaged by a pandemic, the one which humbled the entire world. From the richest and most advanced nations to the poorest and least developed ones, it exposed all of our vulnerabilities. The loss of life, health disparities and economic adversities, aggravated by political and ideological tensions, added multiple layers of stress and anxieties to an already stressed American society.

Methods: The educational institutions in the United States from the central to the local units demonstrated coherence in leadership, guided with flexibility and compassion, which paved the way for smooth operations. However, anxiety among students and faculty of university and college campuses is undeniable. In-person instruction was halted. Research labs and offices were locked down or operating with limited personnel. Thus, the challenges to have timely instruction and to move the research enterprise forward have been enormous. Provided here is a perspective based on a literature search using PubMed and Google with search words “COVID-19, stress, college students”, “COVID-19, stress, US graduate students”, and “COVID-19, stress, postdoc researchers”.

Results: This article is an opinion piece, part personal and part peer experiences. It is presented in light of studies suggesting that the COVID-19 pandemic has imposed significant mental stress and anxiety upon students and faculty members within the academy.

Conclusion: Loss of face-to-face interactions as a result of virtual instructions, lack of in-person mentoring, and loss of research productivity have affected mental health and well-being of the academic community. Despite the challenges of the pandemic, the ingenuity of the human spirit has innovated solutions to catch up on research productivity and to pursue academic excellence.

1. COVID-19: A SOBERING EXPERIENCE

Crowded hospitals, empty schools, deserted grocery stores, and closed social spaces will forever remain in our memory as markers of our mortality and isolation. The United States first reported a surge in the number of COVID-19 cases in March 2020, and a first peak in April 2020 [1]. The fourth week of February 2021, the pandemic reached a somber milestone. President Joe Biden acknowledged 500,000 COVID-19 deaths in the USA with a moment of silence at sunset on February 22, 2021 [2]. Perhaps the most heartbreaking fact about reaching the half a million mark in the US, is that the death toll is still rising. Many new infections and hospitalizations continue daily [3], and clearly, the country has a long way to go before the end of the pandemic is made possible. Sadly, the present situation appears to be a precarious race between the vaccine and new, more transmissible variants of the virus. According to a forecast from the Institute for Health Metrics and Evaluation (IHME), the US may surpass 600,000 deaths by June [3].

Here, I submit my impressions in the form of an opinion piece, part-personal, and part-peer experiences, presented in light of published studies. At first, COVID-19 seemed an annoyance or a mere disruption to our otherwise comfortable routine lives. Little did we know that we were in for a rude awakening. Individually and collectively, we were psychologically, socially, and financially unprepared to deal with the disruption by this pandemic. As we tried to make sense of the COVID-19 pandemic, we spent the initial period catching up with pending work and tending to mundane activities such as long-neglected chores at home. Admittedly, this productivity enabled a weird sense of satisfaction. However, as days transformed into weeks and then months, with no clear end to the pandemic in sight, frustration seeped in with immense uncertainty. Importantly, as the loss of relatives and friends made the human toll all too real, despair and disillusionment became unavoidable. Whether one was grieving in isolation or worrying in solitude, the emotional toll was undeniable. We, as humans, all crave connections. Not being able to have those connections during the pandemic triggered feelings of abandonment and demotivation. As the pandemic has raged on, most of us have encountered these feelings. I am no exception. As a neuroscientist by training, an Associate Professor at a major public research University in the United States, and admittedly a people-centered person, the newly amended form of life brought disillusionment.
2. COPING WITH THE PANDEMIC

People looked around for fulfillment; some adopted reading, others found peace in yoga. Still, others found it in the outdoors. I am not a yogi, a runner or an avid reader but I do enjoy reading a good book once in a while. No, I am a great fan of reading quotes. I confess that browsing Pinterest for quotes has been my to-go strategy while standing in grocery store queues or waiting for an Uber driver to arrive. My connection with quotes is somewhat strange. Some find quotes to be cheezy, while others find an interest in quotes too Greek or too ideal. My interest in quotes goes back to my childhood days in India, where I would spend hours at a local bookstore sifting through dust-covered used books looking for a book of quotes. Back in the day, book shops in small-town India were not quiet or by any means tidy. The shops were noisy joints for locals. Parents came in to buy reference books for their kids or school kids themselves came to secure the newest comic book to share-read. In our shop, the serious reading material was a pile of used books at the back end of a poorly lit, windowless hole in the wall. Only new books were displayed on worn-out wooden shelves stacked on a small make-shift column of bricks. Everything else was a mess. Fearful of the un-harnessed self-standing shelves caving in over me at any moment, I avoided them as much as possible. But, there was no other way to get to the back of the store. The sagging wood shelving units would wobble as buyers roamed around looking for a purchase. I would rush through this tight space, treading lightly, making sure not to disturb the shelving balance. Once through the gauntlet, I would offer a sigh of relief for having made it unhurt. But, enough of this detour from my connection with quotes. I think there are great wisdom and comfort to be derived from quotes. Moreover, these quotes can have a broad spectrum of sources, from ancient texts to pop culture. These inspiring phrases have the power to make us steady through life’s challenges. They were effortlessly preserved over time because the message they convey is that of “accessible truth”. Two quotes, in particular, have spoken to me over and over again. “Keep calm and carry on” is a mantra that I have often referred to in my life, and I find it quite inspiring. The origin of this quote dates back to World War II, when the British government displayed it on posters to boost public morale. This quote has grown in popularity over the years because its message has transcended its original intent. Another timeless quote is “This too shall pass”. The source of this saying is the great Persian poet and philosopher Rumi. It promises continuity and resilience and has brought comfort and hope time and again during difficult moments in my life.

During the pandemic, I often remarked myself of the quote, ‘Keep calm and carry on’. The enormity of the challenge of teaching virtually became evident to me early on. Absent were the one-on-one connections, the nods, and the looks of appreciation and/or annoyance from students. While the technology, via its many virtual platforms, compensates for the loss of physical contact to some extent, it can never replace the assurance of a nod. The virtual cheers can hardly reciprocate the warmth of a well-done lecture, which as teachers, make us feel satisfied. The lack of interactive warmth left me uninspired and dissatisfied. After all, the desire for proximity is a basic tenet of our existence, and interactions are quintessential to our survival. I am certain the students also felt this disconnection.

3. THE EMOTIONAL TOLL OF THE PANDEMIC ON RESEARCHERS

Finding innovative ways to carry on our research mission is another constant struggle. Devising mechanisms that promote research productivity while remaining socially distant have kept my lab afloat. Graduate students have especially faced an unparalleled experiential gap as a consequence of COVID-19 restrictions. To ensure safety, equity, and well-being, students were discouraged or even prohibited from wet labs for a significant period of time. As a result, students faced decreased access to advising, mentorship, and research opportunities. In addition, limited exposure to national and international conferences and career fairs pose unique challenges for future career opportunities. There is evidence suggesting that the COVID-19 pandemic has generally increased levels of stress and depression among the general public [4]. However, the impact on college students in the United States has not been well-documented. This is in spite of the fact that university students are a recognized vulnerable population as a result of the pandemic. The 2019 Annual Report of the Center for Collegiate Mental Health [5] reported a high prevalence of anxiety (62.7% of 82,685 respondents) among students who completed the Counseling Center Assessment of Psychological Symptoms. This seemed to be the national trend. Texas A&M University reported an increase in the number of students seeking services for anxiety disorders. Given the vulnerability of this population during the pandemic, there is a critical need to assess the mental health of college students in order to address concerns in a timely manner [6-9]. Studies are beginning to highlight this issue. Wang et al., [10] have reported an alarming rate of university student respondents showing depression, anxiety, and/or suicidal thoughts with significant academic-, health-, and lifestyle-related concerns caused by the pandemic. Another survey revealed a marked increase in graduate and undergraduate students’ mental-health struggles [4]. Depression among graduate students in the United States reportedly doubled during the COVID-19 pandemic, according to a survey conducted by the Student Experience in the Research University (SERU) Consortium, a collaboration between the University of California, Berkeley (UC Berkeley), and the University of Minnesota Twin Cities in Minneapolis. The survey reported that more than 15,000 graduate and 30,000 undergraduate students at 9 US research universities had signs of depression [11]. The survey also found disparities between fields of study. Depression was most common for students in the physical sciences and signs of anxiety were most common among those students pursuing biomedical research. The move towards remote instruction might also have exacerbated mental-health issues for some students. For example, roughly 5% of graduate students said that they were not adjusting well to remote instruction. However, within this relatively small group, the reported anxiety rates soared above 60% [4]. Relevant to this, the
Healthy Minds Network survey reported that 19,000 US undergraduate and graduate students reported signs of depression [11].

4. CRAVING FOR NORMALCY

Having practiced social distancing for almost one year, I am not embarrassed to admit that I have been exhibiting increasingly awkward behavior lately. Last week I went to my office and met a few colleagues and students in the hallway. I was thrilled to see them face to face but found myself utterly confused in choosing a socially acceptable form of greeting. I made odd hand gestures trying to decide between a handshake, a wave or an elbow shake. The bottom line was- I was craving the warmth of an emotionally satisfying touch which was also appropriately socially distant. Next, seeing the open office door of a colleague, I was ecstatic and popped my head into his office. I struggled again. I did not know if I should enter halfway in, a quarter of the way in, or just not enter at all. Then, I noticed the red sign at the door which said “6 feet apart, stand here”. So, there I stood, embarrassed at my perceived lack of compliance with the sign. After apologizing to my colleague for overlooking the sign, I expressed my joy at seeing him in-person. He laughed and confided that he is struggling with this awkwardness as well. Hopefully, once the pandemic is over, the hugs and handshakes will be back in fashion. The vaccines are here and things look promising. I keep reminding myself of the quote, “This too shall pass”!

CONCLUSION

The emotional, social, physical, and economic impact of the pandemic will be a matter of reflection and discussion in the years to come. Loss of lives, employment and interactions have taken a toll on society in an unprecedented manner. Particularly, loss of research productivity has greatly impacted the academic community. Despite the loss, the community has stepped up in unusual ways and provided out-of-the-box solutions to catch up on research productivity and to continue the pursuit of academic excellence.

CONSENT FOR PUBLICATION

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CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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