Facts Don't Care About Your Feelings: Reflections on Science Communication via Social Media

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Beyond doomscrolling and Tiktok micro-trends, what does social media have to offer us? Platforms have evolved significantly since SixDegrees was first created in 1997, to Friendster, MySpace, Facebook, nowadays Twitter, Instagram, and most recently Tiktok. Influencer culture on social media has simultaneously created both a treacherous arena of wellness culture grifters spewing misinformation, and a space for mindblowing creativity and talent to find dedicated fans (1). For scientists and physicians, it represents a powerful, but currently underutilized, tool for science communication and public outreach.

Scientific questions are often at the core of daily contentious topics: vaccine policies, gender-affirming care, social determinants of health, and more. **The public has a right to hear about these research findings first-hand from researchers themselves—not from @DrRandomUser whose credentials are a quick Google search or made-up certificate program.** How do we, as the scientists actually doing the science, study vaccine efficacy? How do we know gender-affirming care is beneficial for patients?

My recurring mantra for science communication on social media is "WDTDS: What does the data say?". This has been a powerful approach particularly when discussing the devastating cuts that funding cuts will have on American scientific innovation. It doesn't matter how you, I, or @DrRandomUser online feels about the science. Truthfully, it doesn't matter how any of us feel about the cuts—what matters is the data we will lose and the data that shows us how much we will lose (scientifically, economically, workforce numbers, etc.). At the end of the day, the data is what should be guiding our evidence-based medicine, public policy, and more.

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Yet, science outreach must go beyond a simple presentation of the facts themselves. We must also demonstrate the hidden curriculum of the scientific approach: how to develop a healthy skepticism and how to understand the nuance inherent in all research. Not all research is good research, but how should a layperson go about determining that? We should be encouraging people to question scientific methods and disclosures of competing interests (yes, even when they question us too!). Why do we sometimes study autism spectrum disorder using rodent models instead of clinical trials? Should they listen to what @DrRandomUser is saying about their top 3 gut health hacks? Why or why not?

I hope that science communication not only teaches people about the science, but also about the scientists. I want us to use our platforms to show who we are. Who are the "entitled DEI hires" that are actually doing the work our Secretary of Health demands (2-4)? Who are the "whiny" students worried about their graduate school research funding (5)? What motivates us? Why do we do what we do? We know we are not evil overlords who profit off of illness and disease, but how can we show the public what actually fulfills us? I have found that a transparent approach on social media helps engage people in our journey and goals—no matter how big or small.

None of this is to say we are obligated to put our bad days on the internet for public viewing. Nor should this be considered a requirement to add on to the already overflowing to-do lists for many physicians and scientists. Many of us have no formal training in science communication or public outreach—and this is ok (6-7). But for those of us searching for a way to connect with the confused and the angry, with the skeptics and the believers, with the blue and the red, social media should not be overlooked as a tool for doing so.

Ultimately, I hope science communication in the future can take on a three-pronged message: teaching people about science, teaching people how to think about science, and teaching people who the scientists are. I believe continuous outreach in the face of anti-science skepticism will be critical for combatting the dangerous waves of misinformation crashing through our society. As social media continues to grow over the next 25 years, I hope more science communication will enable us to share our work, perspectives, and our stories with the public.

Don't forget to like, comment, subscribe for more.

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