Interview with Dr. Neal Baer

For podcast release
Monday, November 21, 2022

KENNEALLY: Sugar-sweetened beverages and COVID-19. Gun violence and teenage sex. What they share is that each can lead to dangerous health consequences. Data-driven science shows us how in each case, the cause leads to effect. The science, though, may not be enough to change minds and save lives.

Welcome to Copyright Clearance Center's podcast series. I'm Christopher Kenneally for Velocity of Content.

Physicians and medical researchers must be data-driven, of course, yet research has shown human beings prefer stories over statistics. Dr. Neal Baer is a Harvard-trained pediatrician and a producer and writer for hit TV shows ER, Law and Order: Special Victims Unit, and Designated Survivor. From his work in hospitals and in Hollywood, Dr. Baer says he has learned to tell stories about public health issues in emotionally compelling ways first, then go to the data later.

Neal Baer is co-founder of a new one-year Harvard Medical School graduate program in using storytelling to make a difference in health, leading to a master of science in media, medicine, and health. He joins me now from Paris, where he is on location for a Netflix series. Welcome to Velocity of Content, Dr. Baer.

BAER: Hi. Thanks, Chris, so much.

KENNEALLY: Well, we're looking forward to speaking with you, Dr. Baer, and I hope you will tell us the story and then give us the data on how you and Dr. Jason Silverstein came to create this master of science in media, medicine, and health for Harvard Medical School. What place do stories have in the training of physicians and others in the medical field?

BAER: We did a study, the first of its kind, looking at the impact a story had on our TV series, ER, on knowledge acquisition by the viewers. That study looked at human papillomavirus. This was before the vaccination Gardasil was available. We found after the show aired that a large number of viewers learned that HPV causes cervical cancer after they watched the show. This study was done by Kaiser Family Foundation and Princeton Survey Research. The experimental treatment was actually the show itself.

Because we learned that HPV and our show affected the audience in terms of the story that we showed, we were able to work very hard to make sure that the stories we told were

accurate. And to this day, I still work with an organization called Hollywood, Health & Society where we provide accurate information about the impact of storytelling on the viewer.

So that study really had an effect on me, and that effect really resulted in this master's degree program at Harvard Medical School. Essentially, we train health care providers, health advocates, people who want to work in foundations, a large number of people who have a deep interest in promoting health and well-being how to tell stories that will have an impact.

KENNEALLY: Dr. Baer, tell us about the science behind why facts and figures are really insufficient to promote public acceptance of evidence-based practices and policies.

BAER: A wonderful researcher who's had a profound impact on me, on Nick Kristof, the op-ed writer – former op-ed writer, I should say, for the *New York Times* – and Daniel Kahneman, the Nobel Prize winner in economics, is the psychologist Paul Slovic at the University of Oregon. Dr. Slovic found that when you tell people a story that's laden with data versus an emotional story, the impact really is profound when it's a story about one individual. He looked at a story about a child with food insecurity in an African country, and then a story with a child and their brother, and then a story about the village, and a story about the country. And people gave the most money when it was a story about one. They weren't moved by large numbers of people.

So we start with the data, but we don't start our story with the data. We start our story with a compelling, moving, emotional, understandable story that can move us emotionally that is supported by the data. And that is also supported by the data, too, in terms of Paul Slovic's work.

KENNEALLY: Dr. Neal Baer, the COVID-19 pandemic certainly has highlighted the challenges to helping people listen to science. What do you think are the most important lessons for public health policymakers that we have learned?

BAER: That various groups – say, Latinx or African Americans – are not monolithic in their beliefs. We need to look at smaller groups and look at the similarities, but also the differences, and not think that by telling one story, we're telling everyone's story. People relate to stories by bringing their own template of their lives to the story.

It doesn't mean that it's the right story or the wrong story, or these people are wrong or these people are right, because we do know also from research that shaming people doesn't work very well in getting people to change their behavior. So we use the research that's

data-driven and empirically based, and then we tell a story that will move them emotionally.

KENNEALLY: And the other side from science, Dr. Baer, whether told by anti-vaxxers or soda manufacturers, is certainly well able to convince people with their storytelling. Indeed, selling the public on doubt and suspicion turns out to be good business and good politics. It's also easy, because data isn't required. So if we need counter-stories to counteract these anti-science stories, who should be telling them?

BAER: That is the question that really is profound and really difficult, because we are living in a time of an overabundance of stories. I'm reading, actually, a terrific book by Peter Brooks that just came out about our reliance on narratives – our overreliance, or what he calls our *storyfication*, of our lives, and how do we start to understand the stories that move us and separate those from the stories that move us that are not built on fact, as you just asked.

This requires training and working to really uncover the mystery that many people see in science. They often feel that science is definitive, and therefore they're very angry that we don't understand COVID well. You told us to wear masks. You told us that COVID was this. You told us that COVID was that. We didn't have to wear masks. Now, we have to wear masks. That comes out of this idea that science is definitive.

If you ask me about measles, I can be much more definitive as a physician about the consequences of measles, how it works, long-term sequelae, than I can be about COVID now, because COVID is a novel virus. It is new. So it is not definitive. And I think we have this wrong notion that has spread that science is definitive, and then the population is upset when it's not.

So we have to really work, beginning in schools, with students to understand that science is a process also of gathering data and then drawing conclusions, but looking at correlation and understanding the difference between correlation and cause and all of the complexities of science as it becomes more and more complex and more profound issues are being raised.

So part of my program at Harvard is to ask these really hard questions, look at the research, and then talk to people, say, at the Kennedy School of Government at Harvard who are doing this kind of research on mis- and disinformation to understand how we can construct stories that will help to enlighten people about the process of science as well.

KENNEALLY: And when people reckon with the idea that science isn't definitive or isn't always definitive, they react strongly, as you say, Dr. Baer. You've written that your

favorite line from any show you've produced is "science is just another opinion." Why is that line so meaningful to you?

BAER: That was in an episode of *Law and Order: Special Victims Unit* about vaccination, and it was a mother who did not vaccinate her child for measles, and she took that child to a park. The child was five years old. He exposed a little child who was under a year – and we don't vaccinate for measles until a year. That child contracted measles and died. So that was a show that was designed to ask the question, what is my responsibility to my own child, and what is my responsibility to the community of children?

Here, we have this kind of narcissistic view now that I know best, and I can gather information from the internet and know best. Of course, the problem is obviously that all the information that's available on the internet is not correct and is not data-driven. So we can tell stories that I hope people can relate to, like that story, and begin to think about what that means. Because after she said science is just another opinion, our district attorney said, and your opinion killed that little girl. And that was clear in the story.

And I think around the bend, there are even greater problems, questions. Yes, it is amazing that CRISPR can cure sickle cell disease. It seems to be the case now in an experimental trial. But what does that mean for society when we can begin to edit a person's DNA? Is that something we should do? Should there be laws internationally? How are we going to determine what protections we instate in order to continue doing research that could change humanity the way we know it today? These are questions that my students and I grapple with all the time, and it is really a privilege to be able to work with them and offer this master's degree program.

KENNEALLY: And in this new program at Harvard Medical School, where you're teaching storytelling about science, who are some of the instructors, and who do you think should be the students in your class?

BAER: We have a wide range of instructors from Harvard Medical School. Also, we have guest lecturers from the School of Public Health, the Kennedy School, and the Faculty of Arts and Sciences. One of our instructors is Suzanne Koven, who is an internist at Massachusetts General Hospital and the storyteller-in-residence there, and she just wrote a very compelling memoir called *Letter to a Female Physician* (sic). She teaches with me. Martha Montello, who is a very well known bioethicist, teaches a course with Suzanne on illness and wellness narratives. We have members of our department from global health and social medicine at Harvard Medical School who teach a social medicine course for the whole year. We have the course that the late Paul Farmer started on global health, taught by his cadre of colleagues still as well.

And our students end doing a capstone project based on their own interests using what I call a storytelling modality. It could be poetry. It could be fiction. It could be op-eds. It could be music, dance. It could be using any modality to tell a story that's research-based on improving health and/or well-being.

So we invite applicants across the spectrum of age and interests to come and spend a year with us – it's a one-year program – to really plumb the resources we have at Harvard Medical School and at Harvard University. They take electives to support their work from any program across the university, from the School of Education, the School of Public Health, the Kennedy School, the Law School, the Business School, the Faculty of Arts and Sciences, the Divinity School, the School of Design. It is a real treasure chest of courses that they can take as well to support – say they want to do something that's in the realm of stand-up comedy to promote health. Well, there are courses in a department called theater, dance, and media that offer courses in this area of monologues and telling stories that are comedic. So we encourage our students to take electives, and that's part of their second-semester program – taking an elective that supports their capstone project.

KENNEALLY: Well, Dr. Neal Baer, thank you so much for joining me on the program.

BAER: Thank you. It was my pleasure.

KENNEALLY: That's all for now. Our producer is Jeremy Brieske of Burst Marketing. You can subscribe to the program wherever you go for podcasts, and please do follow us on Twitter and on Facebook. You can also find Velocity of Content on YouTube as part of the Copyright Clearance Center channel. I'm Christopher Kenneally for CCC.

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