**Episode 430: Sarah Naramore, "The Founding Father of American Medicine: Benjamin Rush"**

**[00:00:00] Announcer:** You're listening to an Airwave Media podcast.

**[00:00:04] Sarah Naramore:** So Rush is one of those figures I affectionately refer to as being sort of a B-list founding father. Rush was a physician in Philadelphia. Unlike some of the founders, his background's a little bit more ordinary.

So he was born in 1745, just north of the city in Byberry, Pennsylvania, and his father was a farmer and gunsmith. When he died, his mother moved the family to the city and was a grocer.

He is a really interesting figure to study this time period in American history because he is a connection maker. He is making personal connections and political connections between a lot of individuals in what will be the United States and in Europe. He is also really influenced by these sort of Enlightenment ideas in science and medicine that connect science and politics in a really direct way.

**[00:01:06] Liz Covart:** Hello and welcome to episode 430 of *Ben Franklin's World*, the podcast dedicated to helping you learn more about how the people and events of our early American past have shaped the present-day world we live in. And I'm your host, Liz Covart.

We often hear the names of the most famous founders of the United States, George Washington, John Adams, Thomas Jefferson, and of course Benjamin Franklin. But history isn't built by a few well-known names alone. It's also shaped by thinkers, doctors, and reformers who worked behind the scenes in the pages of books and pamphlets and on the ground in their local communities.

One of these figures is Benjamin Rush, a man who our guest Sarah Naramore affectionately calls a B-list founding father. Rush signed the Declaration of Independence, trained thousands of early American physicians, and helped shape how early Americans thought about health, citizenship and the very structure of republican government. He also believed that the human body was like a miniature republic. One that could teach us how to govern our new nation.

Sarah Naramore, who since the recording of this episode has changed positions, so you will hear a slightly different bio that's not up to date in the recording. But Sarah Naramore is the lecturer in nineteenth century US history at the University of Edinburgh. She's a historian of medicine and the early American republic and the author of *Benjamin Rush, Civic Health, and Human Illness in the Early American Republic*.

Now, during our conversation, Sarah reveals how Benjamin Rush's Enlightenment training as a physician and his wide ranging curiosity led him to develop a distinctly American system of medicine; how Rush connected health, morality, and politics, and his work around civic health; and how Benjamin Rush's work on mental illness, addiction, and public health made him one of the most influential doctors in the early American republic.

But first, the History Explorers Club will open its doors officially the week of January 19, 2026, and you can join the waitlist now for early access. The History Explorers Club is an online community for adults who love history, and who want to better understand how people really lived in early America, and how that history shapes our world today.

As a member, you'll enjoy live online programs with guest historians who you can really talk to and ask questions of. Community forums, you'll have access to community forums, where you can connect with fellow history lovers, ask questions, and share your historical interests. And you'll have access to quarterly workshops that'll help you explore how historians uncover the lives and events of the past, and how you can use techniques to do the same yourself.

It's an online community that's designed to take your exploration of early American history deeper, and with others who share your curiosity. So to join the waitlist, visit historyexplorers.club. That's historyexplorers.club. Alright, are you ready to investigate the life and work of Benjamin Rush? Let's go meet our guest historian.

Joining us is an Assistant Professor of History at Northwest Missouri State University. She's a historian of medicine and the early American republic, and she's also the author of *Benjamin Rush, Civic Health, and Human Illness in the Early American Republic*. Welcome to *Ben Franklin's World*, Sarah Naramore.

**[00:04:38] Sarah Naramore:** Thank you so much. I'm really excited to be here.

**[00:04:40] Liz Covart:** Now in her book, *Benjamin Rush*, Sarah chronicles the life and work of early American physician Benjamin Rush. Sarah, would you remind us who Benjamin Rush was and why he was such a significant figure in early American history?

**[00:04:55] Sarah Naramore:** Absolutely. So Rush is one of those figures I affectionately refer to as being sort of a B-list founding father. So he comes up quite a bit. He has a lot of friendships and connections with people that I imagine listeners are very familiar with, like John Adams and Thomas Jefferson.

Rush was a physician in Philadelphia. Unlike some of the founders, his background's a little bit more ordinary. So he was born in 1745, just north of the city in Byberry, Pennsylvania. And his father was a farmer and gunsmith. When he died, his mother moved the family to the city and was a grocer.

And he sort of grew up with, again, this sort of ordinary background, but with a single parent who was very invested in her son's education. So he comes up through the grammar school system in Pennsylvania, attends the College of New Jersey, which is now Princeton University. And then goes on to start his apprenticeship in medicine, and then ultimately study at the University of Edinburgh, back to be a doctor in Philadelphia.

So that's like his very condensed sort of CV. But of course being a doctor just isn't automatically making him important. He's a interesting figure to study this time period in American history because he is a connection maker. He's making personal connections and political connections between a lot of individuals in what will be the United States and in Europe.

He is also really influenced by these sort of Enlightenment ideas in science and medicine that connect science and politics in a really direct way, which is what I'm interested in, in the book is how does medicine, the study of medicine, the idea about how human bodies work, how does that influence the way Rush is going to talk about politics and communicate this to a broader audience.

In the musical Hamilton, there's a bit where it talks about how Hamilton's writing like he's running out of time. He's got nothing on Benjamin Rush. Rush was writing about everything all of the time, and he did not dine and dual. So he has a very wide breadth going. Everything

from like the first American psychiatry textbook, to work on yellow fever, to discussions about how the education system of Pennsylvania should be run to better the country. And I'm interested in this because I think all of this is part of the same project to sort of create the ideal republic.

**[00:07:19] Liz Covart:** It's quite remarkable that Benjamin Rush had the education he did, given his humble background, because it was fairly uncommon for people in early America to attend college, let alone study overseas at a really influential and prestigious institution like the University of Edinburgh. Especially from someone of Rush's middling background.

**[00:07:41] Sarah Naramore:** Yeah, and this is where leveraging relationships is so important in early America and why arguably the real MVP here is his mother, Susanna Rush. Who puts together the funding. She uses her family and religious connections. So she's heavily influenced by the First Great Awakening, and has these sort of connections with other leading Presbyterians.

So Rush ends up going to a sort of boarding school in Maryland for his secondary education that happens to be his uncle through marriage. And from there she's just putting all of this money and emphasis behind that education. To say that you know what she's going to do for her two surviving sons, Benjamin and James, that they're going to make it basically. So it is this idea of putting that investment there.

Rush also seemed to be pretty good at forming useful friendships. So this is *Ben Franklin's World*, I would be remiss not to mention the connection between the two Benjamins. So when Benjamin Rush is a young man in Scotland, around the time he's finished up his studies in Scotland, he goes down and wants to do some observations on hospital practice in London.

And this is the late 1760s, so at this point, Benjamin Franklin is in London as representing the colonies to the British government. And Rush just basically goes and introduces himself as like, hi. He has a letter of introduction, but goes in, makes apparently a very good impression because Franklin sort of takes him around to the interesting salons and breakfast clubs of London.

And also, loans him a hundred pounds, which, as you know, is quite a bit of money at this point. So he loans him the money so he can go to Paris for a few months and then he returns

to Philadelphia. And then Rush does the ultimate good thing. He actually scrapes together and pays the money back. Which Franklin apparently was not expecting.

He'd kind of written it off as this like 22-year-old kid was never going to be able to pay him back. But he gets a letter from his wife saying like, "yeah, this kid showed up at my door with a hundred pounds to pay you back." And that did seem to start a pretty good relationship. So he is good at leveraging those connections when he wasn't getting in fights.

**[00:09:56] Liz Covart:** Sarah, you mentioned that your interest in Rush's medical career is also about how his medical career and his study of medicine influenced Rush's politics. So would you tell us about your research and how you went about researching Rush's life and politics?

You know, many historians who study politicians, they go into the paper archives, right? They read the journals of the Continental Congress, and the letters and the correspondence that politicians left behind. So how were you able to research not just Rush's life in politics, but also his medical career and his ideas about medicine? What were the records and sources you used, and how might they have been different from other just straight political studies?

**[00:10:39] Sarah Naramore:** Yeah, that's a really great question. There are some things that are really similar. For example, correspondence was huge for me. Not only things that Rush wrote, many of which have been published very handily, but I spent a lot of time looking at his incoming mail, which at the Library Company in Philadelphia.

So I did spend about five months reading through three thousand or so letters sent to him. Where it differs is partially in the content of those letters. Also, as someone who's interested in seeing Rush in the context of his broader world, we're really lucky that quite a lot of his ordinary correspondence was saved.

So when I was looking at things, I was interested in contact from patients or from people looking for medical advice, as well as those political connections. So for example, I focused my attention because I only was able to look at about half of what exists. I focused my attention on the letters that were alphabetized.

So getting into the archival weaves here, so like a bunch of the letters are alphabetical by author, by sender. And then the letters of very famous people got sort of pulled out and put

into different folders. For example, British chemist, Joseph Priestley, who also was a political radical and moved to Pennsylvania in the 1790s. Priestley's letters are separate. So instead of focusing on like the Priestley or the Adams or the Jefferson letters that had all been pulled out, I went through these generic alphabetized letters, some of which were very useful, some of which were not.

But sort of doing this meticulously to see how the world viewed Benjamin Rush, which was by the 1790s or so, early 1800s as kind of America's doctor. It's almost the equivalent of people like tweeting at Dr. Fauci in 2020 asking for advice. There are letters from like Kentucky in 1800, asking what to do about a wet basement. So that was really interesting. And I probably have read more about people's wet basements and problematic menstrual cycles than the average political historian.

And then in terms of published things, again, the genre is slightly different. The first American medical journals start to pop up right after the revolution, so I'm looking a little bit at journals like that. Although Rush didn't prefer to publish in medical journals, he's a little bit old fashioned. He liked pamphlets and books.

So what we tend to get our like his big sort of publications are actually little anthologies of Benjamin Rush's, either medical or political and social pamphlets. And I had read through a bunch of those as well.

So yeah, some similarities. Some differences. Certainly read a lot of medical textbooks. My mentor and advisor suggested that before getting into eighteenth century medicine, I basically had to go to eighteenth century medical school, which is reading the medical theory that Rush would've learned in Edinburgh.

So I, I like spent a summer just reading William Cullen and George Ernst Stahl. Just like reading these eighteenth century medical books as well. So when I encounter discussions of disease or the body in letters, I have a little bit more of an eighteenth century instinct.

**[00:13:52] Liz Covart:** Did you encounter any of Rush's account books? I think we forget today because our medical system is complicated and it has its own billing departments, but doctors living in the late eighteenth and early nineteenth centuries had to keep their own

accounts because they were also running businesses. They were running their own medical practices.

So I'm just curious, were you able to look at any of Rush's account books so that you could develop this fuller sense, this fuller picture of his medical practice?

**[00:14:20] Sarah Naramore:** That's a great question. So yeah, I did look a little bit at some of the accounts. They're a little messy as people know who have gotten into these. Sometimes it's a little hard to tell. But no, there's quite a bit of scope in terms of he was treating a lot of people throughout Philadelphia. He was treating people of different social classes.

And, as was common for doctors at the time, you can look and basically people are charged based on their ability to pay. That is considered the polite thing to do. So you might charge a wealthier patient quite a bit more for the same procedure than you would someone from the lower classes. Rush was also involved in the establishment and did a lot of work at the Philadelphia Dispensary, which is essentially a free drop in clinic. Again, for those who don't maybe have the ability to pay a doctor.

So we get the account books. Two more fun things about the accounts. One, he did treat non-human animals on occasion, which is not uncommon, but I thought it was pretty fun that at one point Benjamin Rush was called in not to treat any horse, but Citizen Genêt's horse, for some early American name dropping.

And then the other thing which is interesting comes, is more about difference in medical practice in different regions. So we know that in early America, based on where you lived you were likely to encounter very different ideas about smallpox inoculation. In the South, it was pretty spotty as far as inoculation went.

In densely populated New England, there could be a lot of anxiety about inoculating sort of freely outside of like a inoculation order, because unlike vaccination, which would come later, if you're inoculated, you're contagious. So you don't want to accidentally start an epidemic. And then we sort of have this like middle ground in the Mid-Atlantic, where inoculation becomes very normalized in some settings.

And that includes in Rush's account book. So there are moments where there are notes about smallpox inoculation where it's sort of in there for, "at some point this year, we'll inoculate your family like when this stuff is available," which is kind of cool.

**[00:16:29] Liz Covart:** I know we're curious about how Benjamin Rush became this famous physician, where people in Kentucky wrote to him in Philadelphia about their wet basements or the French diplomat Citizen Genêt looked to him to treat his ailing horse.

So Sarah, could you tell us more about Rush's medical career and how he became known as this doctor who took really firm stances on medicine and medical practice? And then in turn, how these firm positions really helped him become known throughout the wider world of early America?

**[00:17:00] Sarah Naramore:** Yeah, absolutely. So this is where the idea of an American system of medicine comes in, because this is sort of his ultimate project, and where we get to by the mid to late 1790s. So it is a process.

To sort of roll it back slightly. So we're going to get to basically Rush saying, "I have a way of treating and understanding health and human bodies that is specifically designed for the United States. For American bodies and American illnesses, and we have to sort of do our own work."

So this is in an era where medicine has entered this age of systems, as historians of medicine, like to talk about it. So Rush would've been trained by his mentors, his professors, with the idea that—and this is going to be very familiar for anyone thinking about the Enlightenment, right—you start essentially with physiology. So how do bodies work? And then, you sort of rationalize how disease works based on what's gone wrong with the body.

So, for example, there are medical systems that are very invested in the new hot topic of the eighteenth century, which is the nervous system. So maybe everything is controlled by the nerves. Maybe life is essentially electricity. And this is again, around the same time, in some physiologists like in Italy, who are actively electrocuting pieces of frog muscle, like to see if it'll still contract after it's dead. We are in the lead up to Frankenstein.

So you have systems like that where it's like, well, maybe everything is about these like vital forces and it's controlled through the nervous system. Others, a little bit further back, are going to put a lot of emphasis on the circulatory system about how blood is flowing, and where there is or isn't tension in the body.

In learned medicine, we have moved on from sort of a humoral system. There's still an idea that you need what we think of as equilibrium or balance, but it's not like the four humors or something like that. Although there might have been some of that still left in like pop medicine. But you have concern about the blood, particularly once we get like to circulation of the blood in the late seventeenth century. The idea that humans are like these hydrostatic pumps. So it's a lot about pressure balances.

So these are sort of the debates that Rush is involved in. And at the same time, there are concerns about like how many diseases are there? Are diseases something that are external to the body or are they internal problems to the body? Are they unique to individuals? Can we categorize them? This is called nosology the categorization of disease, which gets very popular, particularly in the wake of Carl Linnaeus's work with binomial nomenclature, so the naming of plants and animals. There are some doctors who basically want to do this for disease and have like families of disease and hierarchies.

Rush ultimately chucks most of this, and he comes up with this idea that from his observations as a physician that basically disease is just an imbalance of what he calls excitement. Which lots of things fall under the big category of excitement. It's really kind of like the strength of the stimulus.

So for example, both very high temperatures and very low temperatures would be high in excitement, because they're both sort of far away from neutral, if that makes sense. And you could do this with temperature, with pH, with electricity, with emotional state. All of this is going to sort of shift the amount and direction of excitement in your body. And your body's job is to manage the excitement. Because the excitement makes you alive, but if it gets blocked up somewhere, or if it's misapplied somewhere, that will lead to illness.

So all sort of illness is on the spectrum. Being alive is on the spectrum. And importantly for Rush as well, and to bring this back to politics, he thinks that actually different physiological systems, different organ systems have different jobs in this. So the nervous system can direct

things, the circulatory system moves the excitement around where you need it, and the lymphatic system can help you throw off the excess.

So you have these different systems working together that each have their own role, and each help maintain this balance, which starts to sound an awful lot like the separation of powers in a republic. And he is very precise about this. He says that he actually argues at a couple points that a republic is the natural form of government because God made our bodies republics. Therefore, this is the message here, right, that if nature works like a republic, not like a monarchy, then monarchy is an unnatural form of government, but a republic is a natural one.

And on the other hand, this idea of like blood moving excitement around also means that he becomes a big fan of a lot of bloodletting, which he gets very famous for. So focusing on releasing a lot of blood kind of to bring your system all the way back down to as close to zero as possible, and then build you back up in a healthy way to avoid those sort of energy blockages.

Again, it's a very different way of thinking about health than we have now, but broadly speaking, this is how most people were thinking that their mental and physical spaces are affecting what's going on in their bodies.

**[00:22:29] Liz Covart:** Was Rush's idea that our bodies are like little republics tied to his theories about civic health? Which is something you wrote about in your book, *Benjamin Rush*. If so, could you tell us about Rush's ideas about civic health, and how he used these ideas to shape medical practices and public health policies throughout the early American Republic?

**[00:22:52] Sarah Naramore:** Yeah, civic health is actually my term to describe what he is doing. American system is his term. Civic health is what I think he's essentially doing by applying those health principles to society.

So this is an era before we have something that's actual public health. He's interested in the health of the public. And that means the sort of physical, mental, and sort of political health of these systems. So this is me trying to make sense of what Rush is doing. So putting together these ideas about what is or isn't healthy, and trying to use the power of

self-governance of a new republic, particularly at the local level, to use political power to encourage health.

So this idea that you have to be healthy to have a republic. Which particularly when we're talking about sort of mental health and virtue, we're more familiar with, I think as historians of early America. This idea that a republic will fail if its citizens are not selfless and virtuous, right? Because then you will fall prey to like a demagogue or something like that, and the republic will fall apart if you don't have this sort of active and moral citizenry. Which a lot of early Americans are very concerned about.

Rush thinks that you can kind of manufacture this. That if you can limit, for example, the negative physical health effects of urban areas. Like if we can wash the streets, if we can put in regulations about whitewashing your basement, because they thought whitewashing walls kept things healthier. If we can do those sorts of things. If we can use those powers of government to both sort of police, particularly urban spaces that could be physically unhealthy, and to observe them.

So Rush and some of his colleagues propose to the state of Pennsylvania that they should not only have certain sort of medical policing powers during epidemics or during sickly seasons, but also that they should be able to send like regular reports on the air quality. Which at this point is basically like how much carbon dioxide is in the air, but it was sort of a stand in for decay if you have a lot of like carbon dioxide or other sort of gases in the air.

But Rush has seen that sort of as the same thing as like using his knowledge about bodies and like human development to design the best school system, and to have this idea that like at least all boys should go to school for free, that there should be education for girls. This gets into like republican motherhood and womanhood at the same time.

So all of this together, right, is this very broad idea of what constitutes a healthy republic. And that's I think what I'm getting at with this idea of civic health. That as a doctor, he kind of sees society as his patient, or at least he can theorize about society being his patient.

**[00:25:52] Liz Covart:** Now, before Rush's America system, what were the prevailing ideas for public health in the early nineteenth century? How did physicians think that they could keep society healthy in terms of its ability to fight and prevent disease and illness? And also

inspire people to participate in the good health of their society, and therefore in the good health of the republic?

**[00:26:14] Sarah Naramore:** We get a little bit of that, maybe less on the sort of like republican angle. There are some earlier public health measures. The idea mostly trying to prevent infectious disease from spreading. So there are some places like on a smaller scale, where you might have a town or city pay for smallpox inoculation during an epidemic.

There's certainly in Europe, the quarantine system is quite robust and that goes back to when bubonic plague was much more of a problem in the Mediterranean. In parts of what will become eventually Germany, there's an idea of actual medical police. But again, the sense is that this is more of a, a sort of top-down directed from a government, rather than sort of like the leading citizens of a community doing this and working together.

And I think in the American context, it gets pulled into these sort of revolutionary ideas about citizenship, in addition to just how do you keep people healthy because there are social and economic consequences to too much death

**[00:27:23] Liz Covart:** Now, Benjamin Rush was known for his ideas about mental health and how to treat people who suffered from mental illness. As this is a bit of a weighty topic, let's take a quick sponsor break. And then when we get back, we'll dive into this topic and into some of your listener questions about Benjamin Rush.

**[00:27:40] Ad Break:** Each time I sit down with a guest historian, I'm reminded of something very important. Good history takes time, care, and resources. And that's the same whether you're researching and writing a book or preparing an episode of this podcast.

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And to those who have already donated, thank you. Thank you so much. Listeners like Mira S., Virginia S., Thomas S., Hannah S., Abigail, S., TM T., Jane T., and William W., you helped make this work possible and I'm really grateful. Thank you so much for your support. And thank you, my friend, for listening, for your generosity and for being a part of this amazing community of people who know that history matters.

**[00:29:05] Dynamic Ad Break:** Audio varies and may shift timestamps in the second half of this episode by 1-2 minutes. Thank you for supporting *Ben Franklin's World*.

**[00:26:07] Liz Covart:** Sarah, Benjamin Rush was known for his ideas about mental health and how to treat people who suffered from mental illness. Would you tell us about Rush's approach to mental health and how and why his was pioneering work in this area in the early nineteenth century?

**[00:29:23] Sarah Naramore:** The turn of the nineteenth century is an era of a lot of chang when it comes to mental health. Rush and colleagues of his in Europe kind of simultaneously start writing and speaking more about mental health, and thinking about mental disorders as diseases that have a physical component.

So for Rush, it's this idea, what he would call things like mania or other mental disorders are doing something physical to the nervous system to the brain. The cause may or may not be physical. So it is also this idea, it's this broad concept of excitement that, for example, a really strong emotion might sort of trigger an imbalance. But that there is a physical part to this as well, which isn't as common in an earlier eras.

So by thinking that these disorders or deviant behaviors have a physical component that brings them into the realm of the physician, right? Like this makes it like a doctor's business to start talking about mental health, rather than the role of like theology or something like that.

So Rush starts doing some work at the Pennsylvania Hospital with patients that have quote "diseases of the mind" to use the terminology of the day, and trying to find this balance of what we refer to as moral treatments in this era. So those are non-physical treatments, so talk

therapy, really early forms sometimes of like occupational therapy, so particular activities, changing particular settings around you.

And then essentially the same kind of physical treatments he'd be using for a fever. So there is a lot of bloodletting going on, a lot of trying to manipulate the body. Some of this looks pretty horrific to a modern eye. There's a lot about Rush's treatments that get sensationalized. And again, it looks weird.

He had this contraption that was called the tranquilizing chair, Google it. It'll come up. But essentially it's this idea where you have a chair, there are sort of straps that hold your arms, legs, and torso in position, and then there's like a box around your head. It looks awful. The idea is twofold. One is sensory deprivation. So for someone who is having trouble controlling themselves or in a really sort of frightened or manic state, or threatening to end their life, something like that, you can put them in this sort of safe sensory deprived setting. It also allows the doctor to actually access things like the veins in the arm.

Head shaving was also pretty common. Like you'd shave somebody's head and then apply what they called a clay cap. So they would put clay on your head to try to literally cool you. So the idea that things are getting too hot, like literally in your head. So it allowed the physician access. Again, it looks horrifying to us and with what we know now, it, it is horrifying. But this was really seen as a more humane step to take than like a straightjacket, which is straight waist cooped or actually like restraining somebody. They thought this was safer and more humane than other options.

And we get sort of mixed therapies. There's a couple cases where Rush talks about sort of trying to snap someone out of a moment when they're feeling suicidal by bloodletting, but also trickery. So he like directs one of his colleagues with a patient to say like, “sure, we'll help you do this” sort of pretending that they're going to bleed this person to death. And instead, they obviously don't bleed the person to death, but bring them down till they pass out. And then when they wake up, they're like, “oh my, like I didn't really want to die. What were you doing?” Taking that as a success. So it's a very experimental era, which is both sort of frightening looking back on it, but also is at the same time they're trying to figure something out. They are trying to help people. It's a hard subject.

**[00:33:42] Liz Covart:** It is a really hard subject. And speaking of mental health, Kristen is curious to know more about Benjamin Rush's unique perspective on drug and alcohol addiction and treatment. So would you be able to tell us about Rush and how he viewed addiction in the late eighteenth and early nineteenth centuries?

**[00:34:01] Sarah Naramore:** Yeah, so he's going to sort of subsume it with mental health in general. So again, starting to see what we think of as addiction in this both physical and psychological context.

He hasn't talked too much about other drugs. He does talk about alcohol. He is pretty famously an early temperance advocate. Not the teetotal temperance that we get later into the nineteenth century, but sort of this first generation of the temperance movement where there's a lot of concern particularly about hard alcohol.

So Rush would be, for example, in favor of and did drink like fairly low alcoholic beer because everybody did. And that's not really a problem. He'd see wine or something like that as alright in moderation, and for particular conditions. And then as we get higher in alcohol content, things getting progressively worse, and potentially leading to having sort of effects on your physical system that could lead to a dependence or lead to a pattern that's going to lead you to bad choices.

Infamously, he famously created this thing. It's essentially like a little diagram called the temperance thermometer; where he has like a chart where he ranks, using that idea of excitement, a whole bunch of different beverages based on zero excitement, which is water going through more and more sort of exciting and stimulating drinks, until for whatever reason, like the worst you can do is rum with pepper, which sounds really gross to me personally, but as the most intense.

So you've got all the drinks and then you've got what they're doing to you physically or like how they might affect you physically or mentally. And then as you get beyond wine, as you start to get into fortified wine and more alcoholic, the deviant behaviors or the criminality that is associated with too much drinking of it.

So that's sort of how he's understanding this and not necessarily as the fault of the person who has followed this sort of path, but as something that will sort of perpetuate. And you will get

stuck in this system because of what's going on with your body and your mind. He also seemed to have an understanding that some people were effectively self-medicating with alcohol.

He brings up in a couple cases looking back on what we think of as PTSD among Revolutionary War veterans, and connecting that with a large amount of alcohol consumption. And then connecting that in some cases, again with people taking their own lives.

So it is that kind of trauma to alcohol to really dire consequences, including self-harm and suicide sort of pipeline that he's really concerned about. And others in the time period as well, like Richard Bell's done a lot of work on the anxiety around suicide in the early American republic. So Rush is not alone in his concerns.

**[00:36:57] Liz Covart:** It's just fascinating to me that Rush was able to make these connections that, in some ways, really reflect the truths from what we now know from modern science and modern medicine.

Now, by way of a follow-up, Kristen would like to know how Rush was able to spread his new and novel ideas about medicine and have an impact on changing the way that everyday Americans viewed and treated health in early America. How was Rush able to spread his medical ideas throughout the early American Republic?

**[00:37:28] Sarah Naramore:** He absolutely was. And two big ways that this happens; one is through his role as a professor at the University of Pennsylvania, or will become the University of Pennsylvania's medical school.

So in addition to getting a chance to look at his personal ledgers, I also found his records of all of his students because you had to pay for each course of lectures, and it's a pretty big source of income, or at least a substantial one. And the Rush family was constantly growing, so he was keeping on top of it.

But over his time teaching Rush taught well over three thousand students. So even factoring in that some people are going to disagree with him, that's still a tremendous number of the sort of educated physicians of the early American republic that're going through Philadelphia at the beginning of sort of Rush's era.

Philadelphia's the first medical school in the United States, quickly followed by New York City, associated with Kings, and then Columbia University, and then Harvard right after the revolution. We get a few more later on, but there are fairly limited options if you don't have the money or the ability to travel across the Atlantic Ocean.

So Rush has thousands of students coming in. Many of them are from Pennsylvania, many of them are not. After Pennsylvania, the next most common state to pop up is Virginia. But he has students from throughout the United States and the British Caribbean and Canada as well.

And he taught from 1789 until his death in 1813, he was teaching theory and practice of physics, which is like the core medical course at the university that you would take a couple times, and he would give you his whole medical system. Which is another way I've learned a lot about this is reading his student lecture notes.

So that's one way, like physically these students are fanning out across the country. Some are moving to new locations where they think they'll make more money, especially in the South and west. The second way is that Rush doesn't write in an especially technical way all the time. He does think that people need to understand his theories so they will either do the right thing.

He is very aware of, as any doctor would be, that the majority of healthcare in early America is taking place in the home and people are taking care of themselves or hiring bloodletters before they go to like a physician. So a lot of this is at a pretty accessible level in popular pamphlets that are pretty cheap and easy to get ahold of. He likes to publish in newspapers. He put a lot of his ideas in the *Columbian Magazine*, which was an early, pretty widely spread periodical of the era.

So he's pretty consciously trying to tell others about what he thinks is the right thing to do. But it does seem to work, either with people following him or explicitly going the other direction. But even if someone's yelling at you, if it's in the press, all publicity is good publicity.

**[00:40:36] Liz Covart:** Now, Charlie would like to know if Rush used or developed any patent medicines. So would you tell us what patent medicines are, and whether Rush created or used any patent medicines in his medical practice?

**[00:40:49] Sarah Naramore:** This is a really fun question. So patent medicines are proprietary medications. So basically, you as a manufacturer or apothecary or physician would make some sort of concoction, put your name on it, and literally later as we get further into the end of century, get a patent; only you can sell this particular mixture of products.

Rush is a little early, we're not quite to the patent medicine boom from sort of my gloss on it. However, he definitely made medication. Unlike in London, where the professions were very strongly regulated still in the eighteenth century, like physicians do not make medication. Apothecaries do that. And you have a pretty strong guild system that will get you in trouble if you're double-dipping.

That is not the case in early America. And most doctors are making most of their medical money or a good chunk of it, at actually selling medication, compounding and selling medication. Most doctors are also doing something else like farming as well, because you can't really make that much money as a doctor for most people.

So Rush definitely was making and selling medication. He did have particular high dosages of calomel and jalap, so these are both purgatives. Calomel will make you lose everything from both ends. It is a mixture of mercury and chlorine, and a very popular drug at this time. Rush thought it was really useful for yellow fever, as well as other fevers. And he tended to prescribe it in higher doses. So you could get like the Rush prescribed dose, like during the yellow fever epidemics.

Or they also were sent out with the Lewis and Clark Expedition as a preventative, because they were going to be going through so many different climates their bodies would be at risk all the time. So you just need regular purgatives. And I have heard that like this is evident in like the archeological record of some of those sites, like the high mercury content where the Corps of Discovery was relieving themselves.

So not a super complicated patent medicine. I mean, as we get into earlier, like the second quarter of the nineteenth century and later, they're going to be pretty complicated and have a lot of different compounds in them. But we're starting that.

**[00:43:04] Liz Covart:** Something I'm really curious about is you've mentioned a few times that Rush started his medical practice as the American Revolution gained momentum and turned into the War for Independence.

So what role do you think the American Revolution had on Rush's medical ideas and the way that he practiced medicine? Because it was a real watershed moment for people and something that was very transformative in their lives.

**[00:43:29] Sarah Naramore:** And this is something that I think I could have talked more about in the book, honestly. But I think the war and the revolution itself has a lot of influence on Rush. And revolution, sort of in both senses, both in the sort of political revolution of independence and what does it mean to be a republic that we've talked about, and also just in the physical experience of war.

So Rush was thirty when he signed the Declaration of Independence, when he wasn't supposed to. He'd been elected to go to Congress. It just wasn't his term yet, but he was in town. And he takes an interest in the medical department right away. So in 1776 to 1777, he's in Congress as a representative from Pennsylvania, which does not last long.

But he spends a lot of his time using that political power to try and both figure out what the health risks are on the battlefields, army encampments, and to send a whole bunch of semi-solicit medical advice to Anthony Wayne, who's one of the generals in the Continental Army. As well as to annoy George Washington and try to get him to inoculate the troops. There are several doctors who are harassing Washington to inoculate the troops. There's a smallpox pandemic going on at the same time, because why not.

So he's reading a lot of military medical guides, that of British military medicine, which was a booming genre at the time. And then in 1778, Rush actually joins as surgeon general for the middle department of the Continental Army. And most of what he does is tour hospitals and try to get them under sort of some semblance of what he consider is good order.

And he has a lot of complaints about the American medical system, particularly compared to the British. So he spends a lot of time talking about like how he saw what the British system looked like after the Battle of Princeton, and it was much better. That the junior officers had a

much bigger role in keeping track of the health of their troops, that supplies were better organized, and that this was all a major problem in the American hospitals.

Something he became even more convinced of, that there was a lack of discipline, too much alcohol, and military encampments were not orderly and clean. In every American war until World War II, more troops died of infectious disease than from fighting. And the American Revolution is certainly no exception.

Later on, a lot of this experience he'll bring up and try to leverage as important experience when we're talking about like urban public health. So a lot of the same theories and principles about trying to keep a military encampment sanitary and safe, also apply to cities and towns and trying to think of what the civilian equivalent would be in terms of sort of the power in the organization of doing so.

So that's one big part. And again, the other is really just on the political end, this idea and conviction that Americans have something to contribute. This idea that there should be an American system of medicine. This gets boosted from one of his former professors in Scotland who's like, glad the revolution is over so they can talk again. So the mail's not disrupted. And so excited to see what is going to come out of the United States, as a, hopefully, soon to be sort of equal partner in the republic of letters and sort of the intellectual scientific world.

So there's a lot of this sort of political, cultural pressure to produce something worthy of this new country. Not just providing information to an imperial center, but to become the center itself.

**[00:47:22] Liz Covart:** Now before we move into the "Time Warp," we should talk about legacy. Sarah, throughout your book *Benjamin Rush*, you highlight numerous examples of Rush's groundbreaking medical treatments, including his advocacy for bloodletting and purging, which we've discussed.

You also note that Rush educated over three thousand medical students who adopted very similar practices to his own. So Rush's methods really became quite widespread, even as other physicians criticized bloodletting and purging and some of these other methods.

So now that we're nearly 250 years removed from Benjamin Rush's practice of medicine, what do you think the legacies of his practice are? And do you think any of these medical practices still influence the practice of modern day medicine in our own period?

**[00:48:12] Sarah Naramore:** Yeah, so I think one of the big legacies is that we have this idea that there is something that is like this peculiar American idea of medicine. That we should just sort of go our own way with how we handle healthcare and healthcare systems. And some of that sort of independent mindedness goes back to Rush.

When we get to the point when Rush's students are the old men of the university themselves, in the 1840s, 1850s, there are a bunch of these published lectures. Sort of these men like talking, thinking back to their like student days and Benjamin Rush. And by the 1850s, a lot of the like particular practices of Rush have gone out the window, but there's all this emphasis about like Rush is this model physician and a model patriot. That like, he might have been wrong about bloodletting, but like that's science, where you're proven wrong all the time.

But that he is this like good model about how to think independently and encourage sort of American research and an American medical culture, that they still want to sort of forward. And as we sit here with one of the strangest healthcare systems in the twenty-first century, sometimes I can't help but think if we went a little too far on the, like we can do our own thing.

There are also more immediate interpretations and misinterpretations of Rush. Like throughout the nineteenth century, if you want to like add power to your argument, you'll like say you're a Rush student or that your ideas came from Benjamin Rush. And unfortunately, this has had a lasting impact on racial discrimination in American medicine.

Rush himself, again, had very odd ideas about race, or at least very individual ideas about race. To some extent, he followed eighteenth century concepts about a very fluid idea of race. That racial difference was the result ultimately, over many generations, of climate on different people. He kind of denied any real racial difference between Europeans and Indigenous Americans and was just kind of like "people spend more time outside and get tan" and that really more of a cultural difference; so sort of a cultural stadial theory.

So he was absolutely convinced that like the peak of civilization was probably Scotland. That there wasn't too much of an inherent difference physically, but there was culturally between Europeans or European Americans and Indigenous Americans. His ideas about Blackness are more unusual because he did have this idea that Blackness was a disease perpetuated by slavery.

So he fully is on board with a lot of really damaging racial stereotypes; that people of African descent, for example, feel pain less acutely than white people, which continues to be a problem in the medical profession. And he basically says that Blackness is a disease similar to leprosy that's contracted in the dangerous climates of Sub-Saharan Africa. And then the degrading nature of slavery perpetuates this illness. And that potentially, eventually, with the abolition of slavery—this is his argument for abolition—that will be cured several generations down the line.

People didn't really take up on that last bit, but his discussion about racial difference, his discussions about, again, picking up sort of uncritically perpetuating ideas about differences in terms of pain or ease or trouble in childbirth, those turned out to, unfortunately, be really lasting stereotypes in the predominantly white medical profession for two centuries.

**[00:52:01] Liz Covart:** And now it's time for the "Time Warp." This is the fun segment of the show where we ask you a hypothetical history question about what might have happened if something had occurred differently or if someone had acted differently.

Now, in her book, *Benjamin Rush,* Sarah states that Rush really needed to stand on the shoulders of giants in order to be successful in his career. And these giants included the men that we mentioned in our conversation: John Adams, Thomas Jefferson, and of course Benjamin Franklin.

Sarah, in your opinion, if Rush had not had the political and financial backing of these giants, if Benjamin Franklin had not lent him one hundred pounds, do you think he would've still achieved the success that he had in both his political and medical careers?

**[00:52:46] Sarah Naramore:** So the short answer is just no. And I think that goes for a lot of those giants as well. I mean, it's really fun and interesting, and sometimes honestly practical to focus on one person. Rush was a great person to focus on because he's talked about,

because he's connected to all of these networks. But he is not like a uniquely amazing person without those networks and that support.

I think one of the most important giants is actually his mother. I mean, without that early step, without a series of sort of surrogate father figures, including Benjamin Franklin and William Cullen and John Morgan. Morgan is more of a pseudo older brother; he was about ten years older than Rush, another physician.

I don't think we'd have this. And I don't think Rush would matter if we didn't have those thousands of ordinary Americans or patients or students who continued to keep his name alive and continued to take his advice. So I think we're really made by our networks more than what we can do in isolation.

**[00:53:51] Liz Covart:** So Sarah, what are you researching and writing about now?

**[00:53:54] Sarah Naramore:** Something completely different. So I'm working on a project right now, although still interested really in ideas about points when American medicine feels like it is very unique or self-consciously thinks that they're special.

This time though, I'm looking at iodine deficiency and endemic goiter. So starting actually in sort of Rush's era, but looking at the work of one of his colleagues Benjamin Smith Barton at the University of Pennsylvania. Who wrote a whole book on goiter in the United States in 1800 and how it did not fit at all the categories and assumptions that Europeans had. And sort of starting with that book, and telling this really long story of goiter and iodine deficiency, and gender, it's a highly gendered disease, from about the 1790s to the 1940s. So a sweeping, very different kind of project.

**[00:54:51] Liz Covart:** And where is the best place for us to find you, especially if we have more questions about medicine and medical practice in early America or about Benjamin Rush?

**[00:55:01] Sarah Naramore:** You can always email me snaramore@nwmissouri.edu. I'm also on Instagram, @sarahnara. And yeah, you can Google me and find me. I'm happy to answer any questions.

**[00:55:14] Liz Covart:** Sarah Naramore, thank you for joining us and for helping us better understand Benjamin Rush and his ideas about medicine.

**[00:55:21] Sarah Naramore:** Thank you for having me. It was really fun.

**[00:55:24] Liz Covart:** Benjamin Rush was many things, a doctor, educator, revolutionary, and a prolific writer. What Sarah shows us is how Rush's work reflected his broader vision of a republic in which healthy bodies and healthy minds were essential to the political life and health of the new United States.

Now Rush's idea that the body is a republic was more than just a metaphor. It was a framework for how early Americans might understand the intertwined nature of science, politics, and society. And Benjamin Rush's influence and his ideas endured, not only through the more than three thousand medical students that he taught, but also through the broader public where he published widely and sought to make medicine understandable and practical for everyday Americans.

And while some of Rush's methods like aggressive bloodletting have since been discarded is not at all beneficial, Rush's foundational ideas about public health, mental illness, and addiction planted seeds that still shape our conversations about these topics in her own present day.

Look for more information about Sarah, her book, *Benjamin Rush* plus notes, links, and a transcript for everything we talked about today on the show notes page, benfranklinsworld.com/430. Friends tell friends about their favorite podcasts. So if you enjoyed today's episode, please tell your friends and family about it.

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Finally, Benjamin Rush believed that the health of individuals shaped the health of the republic. Do you still think that's still true today? I'd love to know what you think on this. Send me your answers, liz@benfranklinsworld.com, and we'll have a conversation about it.



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