

Sawbones 80: Medical Education

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Intro (Clint McElroy):

Sawbones is a show about medical history, and nothing the hosts say should be taken as medical advice or opinion. It's for fun. Can't you just have fun for an hour and not try to diagnose your mystery boil? We think you've earned it. Just sit back, relax, and enjoy a moment of distraction from that weird growth. You're worth it.

[theme song plays]

Justin:

Hello, everybody and welcome to Sawbones, a marital tour of misguided medicine. I'm your cohost, Justin McElroy.

Sydnee:

And I'm Sydnee McElroy.

Justin:

The bits are back. Well, listen, we heard you loud and clear America. And you do want us to do bits at the beginning of our podcast, even if we don't necessarily feel like doing one that week.

Sydnee:

It turns out that you guys love uncle jokes [laughs].

Justin:

Yes, uncle jokes, as the Teen Titans would say, "Uncle Jokes."

Sydnee:

You know, like, they're not very good. They're kind of, like, puns and...

Justin:

Yeah.

Sydnee:

... uh, weird, I don't know, back doors and, uh, phrasing. I don't know. They're not necessarily funny, but for some reason, you guys love 'em. So...

Justin:

And yeah, and everybody, when we said we were gonna get rid of this, everybody said, "No. Wait. Please. I love the bits." In fact, hearing from all the listeners has been quite an education about how much everybody out there loves bits, the beginning bits.

Sydnee:

That's very true Justin. And speaking of education...

Justin:

[laughs] That was the bit. That was the whole bit.

Sydnee:

You guys should've sent us a script for this one. I do love the scripts you guys send us, by the way.

Justin:

Yeah. We got some old scripts for bits.

Sydnee:

If we can use those, believe me, we will.

Justin:

Yeah, we will. We're lazy. We're just that lazy.

Sydnee:

So, speaking of education...

Justin:

Yeah, Syd?

Sydnee:

You know, some of our listeners have asked that we talk about medical education.

Justin:

Yeah. You know, it's interesting. It's so regimented now. I mean, it's, it's very well-documented what you need to do to, uh, be a doctor. But I'm assuming that, that is a goalpost that's been shifting throughout the years.

Sydnee:

Oh, absolutely. I mean, it makes sense that you'd want a certain set of standards that you'd hold all people to, to be like, so you'd know what you were getting.

Justin:

Sure.

Sydnee:

So it wasn't just a roll of the dice. But it was, uh, obviously, not always that way.

Justin:

Mm-hmm.

Sydnee:

So first of all, thanks to Carson for suggesting this topic.

Justin:

Carson.

Sydnee:

Um, and so as you can imagine throughout history, as long as there have been people who have been practicing medicine, and I mean, you gotta, I gotta imagine that it kind of started in earnest. Like, the first person who was like, "Hey, I've got, uh, I've got a leaf for that. That thing, see that cut on your leg there?"

Justin:

Mm-hmm. Mm-hmm.

Sydnee:

"I have this one leaf, uh, over at my house. I could use it on you."

Justin:

Yeah, that's probably how medicine started. What's your point?

Sydnee:

I mean, well, I'm just saying, like, there probably wasn't, like, a, you know, a doctor or—

Justin:

Well, it's a... Yeah. It's a—

Sydnee:

There's just a guy who, like, knew some stuff about some leaves or, like, something and...

Justin:

Yeah. It's a very, uh, it's a very chicken and the egg question. Who...

Sydnee:

Was it the patient?

Justin:

... taught the first— No. Who taught the first doctor to be a doctor? Nobody. Think about it.

Sydnee:

Somebody.

Justin:

It's mind blowing.

Sydnee:

Somebody just learned. And then somebody was like, "I'm gonna start telling other people how to do this."

Justin:

"I'm wrong about everything." This is the next thing they said. So strap in, it's gonna be a rough millennia.

Sydnee:

Um, throughout most of ancient history, when we're talking about medical education, we're really just talking about apprenticeships.

Justin:

Yeah.

Sydnee:

Which is pretty standard. I think probably anything, any trade you were learning, that was how you learned it.

Justin:

Through... Right. And you probably didn't need from a diploma from a school, per se. It was probably more, uh, I learned from this person, who learned from this person, begat, begat, begat kind of deal.

Sydnee:

Oh, exactly. And there wouldn't have been schools, initially. So, it, this would've been—

Justin:

What would, what would there've been initially?

Sydnee:

No. Just, like, guys who... And I say, guys, because for most of history...

Justin:

Guys.

Sydnee:

... they were guys.

Justin:

Right.

Sydnee:

Guys who were doctors. And if you were lucky enough to be their son, then they would probably teach you how to be a doctor. And if you didn't have a dad who was a doctor, then you would have to go ask somebody who was a doctor, "Hey, can I basically spend my life learning from you?" I mean, that's the thing, like, an apprenticeship didn't have, like, a defined beginning and end. You would just go find somebody who was a doctor and chill with them.

Justin:

Yep.

Sydnee:

Like until you...

Justin:

Get a hang going.

Sydnee:

Exactly. Until you felt, like, you knew enough to be out there on your own, or until people trusted you enough.

Justin:

Mm-hmm.

Sydnee:

Which probably involved you being older, because they wouldn't trust a young kid, a young buck.

Justin:

Until your doctor got... Until your teacher, one night, got super drunk and said, "Listen, honestly, we're making it up and we have been for 1,000 years. I have no idea. Best of luck out there. I hope you invent Tylenol."

Sydnee:

[laughs]. That's what everyone said until a guy invented Tylenol.

Justin:

Yeah, finally, we didn't even know what this was that we've been talking about.

Sydnee:

Now, the Egyptians really did, they had, like, a system of medicine that they followed. And it was a little more regimented in that, like, there were certain people who practiced what was, like, accepted as medicine.

Justin:

Mm-hmm.

Sydnee:

You know, at the time. And they probably taught it to each other. Like, there's some evidence just simply from when we look at the titles that we have like, that we see were given to certain ancient Egyptian people. Like, there were chiefs of medicine, people who were referenced as, you know, translated to the chief of medicine. So it's certainly, they were, like, in charge of some group of doctors. So maybe they taught people.

There was also somebody called, the Lady Overseer of Lady Physicians, which indicates a couple of interesting things. One, that she was probably teaching other lady physicians. And two, that she was a lady, by the way, so there were female physicians.

Justin:

Huh, that's interesting.

Sydnee:

Um, there were also, like, the physicians who oversaw butchers.

Justin:

Mm-hmm. Hot dog doctors.

Sydnee:

Which, I think, is interesting. [laughs].

Justin:

Sure.

Sydnee:

There was also the, one was, like, the monitor of liquids, something, like, that. I don't know. But that was a doctor.

Justin:

I think that's a good, uh, pharmacist, right? Maybe?

Sydnee:

Maybe.

Justin:

Maybe. I don't know.

Sydnee:

Or maybe that, or maybe it was, like, a urologist. [laughs].

Justin:

Maybe. Oh, well, yeah. It's possible.

Sydnee:

They even had a name for, like, proctology, though, just a side note. I found this for proctologists, and it was, it translated to like, shepherd of the anus. [laughs]

Justin:

[snorts] I don't even have a joke there.

Sydnee:

I think that's enough.

Justin:

It writes itself. Yeah.

Sydnee:

Um, the ancient Greeks primarily practiced apprenticeship as well, although they did start to institute some medical schools. Eh, but I think it's important to remember that, you know, it from the Greek view of education, everybody, like, if you were gonna be well-educated, you studied everything. You studied science, you studied medicine, you studied philosophy...

Justin:

Right.

Sydnee:

... and art and everything so there were...

Justin:

Liberal Arts education for everybody.

Sydnee:

Exactly. So there were probably a lot of people who were doctors as well as a lot of other things. Um, but the main thing was that you had an apprenticeship if you were actually gonna be a physician. Because the books and the, and the lectures in school were kind of like, "Well, if you can do that, that's great. But mainly just hang out with the doctor."

And of course, from the Greeks we get the Hippocratic Oath, so then we actually get...

Justin:

Right.

Sydnee:

... you know, Hippocrates laying down some rules for what a doctor should be.

Justin:

That's the, uh, that's the do no harm cat, right?

Sydnee:

You know what's interesting is that no where in the Hippocratic Oath do we actually say, "First, do no harm"?

Justin:

Really?

Sydnee:

No. It's kind of, like, it's insinuated. Um, eh, yeah.

Justin:

Implied?

Sydnee:

Yeah.

Justin:

Yeah. Same thing. Right?

Sydnee:

Yeah. Yeah. But it's not actually said. And, and I found the original Hippocratic Oath, 'cause I thought, "Oh, I should include the Hippocratic Oath, because I said that."

Justin:

Right.

Sydnee:

Like, remember when I was [overlapping] doing my white coat ceremony.

Justin:

Yeah, I mean, I remember you took... Yep.

Sydnee:

Yeah. I took the Hippocratic Oath except for what I realized is I took something that was based on the Hippocratic Oath but isn't the actual Hippocratic Oath.

Justin:

Is it just falling out of fashion, or...?

Sydnee:

Well, let me give you some examples.

Justin:

Okay.

Sydnee:

Okay. So it starts off, the actual Hippocratic Oath starts off, "I swear by Apollo the Physician and Asclepiads the Surgeon, likewise Hygieia and Panacea, and all the gods and goddesses to witness..." So I didn't say any of that.

Justin:

It would be a weird start, honestly.

Sydnee:

That would be a weird... [laughs].

Justin:

Yeah. That would get a little, like, Stonecutters, I think. I, for me. I would be looking for, for helpless lambs to be led on the stage.

Sydnee:

I don't think I swore by Apollo. I'm fairly certain I didn't.

Justin:

I would've remembered you swearing to Apollo. I'm certain you didn't.

Sydnee:

Now, in the oath, the next part really highlights the fact that they did value educating people in medicine. Like, actually learning how to be a doctor before just saying like, "Hey, I think I'm a doctor now because I love bleeding people."

Justin:

Mm-hmm.

Sydnee:

Uh, so the next part, "I will reverence my master who taught me the art."

Justin:

Yeah. I bet you should point that out to your students. Let them know.

Sydnee:

Yeah. Especially, it goes on, "Equally with my parents will I allow him things necessary for his support." In other words, "I'll give him money if he needs it and will consider his sons as brothers."

Justin:

Wow, so this is, like, a serious... this is, like, a serious relationship.

Sydnee:

Yeah. It ties you very tightly to your, to your, like— They say, my master. But it's to the person who's teaching you medicine.

Justin:

Hm.

Sydnee:

Um, as it goes on, there's some good stuff. Like, "With regard to healing the sick, I will devise and order for them the best diet."

Justin:

Good. This is kind of... That's important.

Sydnee:

"And I will take care that they suffer no hurt or damage." I think that's where we probably first, do no harm, that's where that probably comes from.

Justin:

Mm-hmm.

Sydnee:

Um, there's some interesting things that I found in the original one that I don't remember us saying in our oath. Um, "I will give no sort of medicine to any pregnant woman with a view to destroy the child."

Justin:

Whoa. So—

Sydnee:

So—

Justin:

So basically, no, I mean, you take an oath to not, I mean in the original oath, of course, that I guess, it means to not perform abortions.

Sydnee:

I think that you could interpret that from the original oath.

Justin:

Wow.

Sydnee:

There's also... It says, "Nor, nor shall any man's entreaty prevail upon me to administer poison to anyone. Uh, neither will I council any man to do so." And so, that's come into context, like, is it then what about for physician assisted suicide? Is that a problem?

Justin:

Mm-hmm. Yeah, but like—

Sydnee:

That's a question too.

Justin:

At the same time, like, this is the same document that, that summoned down Apollo and, and everybody at the beginning of it, so maybe, you know—

Sydnee:

Exactly. And—

Justin:

Let's, let's call it a living document.

Sydnee:

Well, and I mean, it says, "I will comport myself and use my knowledge in a Godly manner," next. So that's a little...

Justin:

Yeah.

Sydnee:

Hm. Well, I mean and how many doctors do you know who are like, "Yeah, of course I act in a Godly manner."

Justin:

Not that Dr. House.

Sydnee:

[laughs].

Justin:

That's for sure. That guy's a real, real stick in the mud.

Sydnee:

And I mean, I should point out, this is not a legally binding document. Like, you can't lose your license for violating the Hippocratic Oath.

Justin:

Right. Right. Right.

Sydnee:

Just kind of a nice sentiment.

Justin:

More of a ceremonial type, type deal.

Sydnee:

Yeah. Um, I, like, this, "I will not cut for the stone, but will commit that affair entirely to the surgeons."

Justin:

What's that mean?

Sydnee:

So, cut for the stone, would've meant at the time, to actually cut someone open to remove, like, a kidney or a bladder stone.

Justin:

Oh, wow.

Sydnee:

That was something that was done. But this was a, and this kind of... You see this throughout medical history. There was a differentiation between surgeons and physicians. So surgeons would cut people open. And you, in general, throughout different parts of history, you didn't have to have as much rigorous training to be a surgeon as you did to be a medical physician. Now, that's obviously not true now, but...

Justin:

Right.

Sydnee:

And then, there's some nice stuff. "Whatever house I may enter, my visit shall be for the convenience and advantage of the patient."

Justin:

Yeah.

Sydnee:

"I'll refrain from doing any injury." Um, "From acts of an amorous nature." You know what that means?

Justin:

Okay. Get that. Did you hear that, Hawkeye Pierce?

Sydney:

Mm-hmm.

Justin:

Get that libido in line.

Sydney:

Watch yourself. Uh, "Whatever I may see or hear in the course of my practice, um, I will not repeat it."

Justin:

Okay.

Sydney:

That's HIPAA.

Justin:

That's HIPAA right there.

Sydney:

Yeah. That's HIPAA all the way back then. And, "If I faithfully—"

Justin:

Is that short for hippocratic? [laughs]

Sydney:

No.

Justin:

No. Okay.

Sydney:

No. It's the Health and... It's an Act.

Justin:

Something.

Sydnee:

It's a... Something.

Justin:

Yeah. HIPAA.

Sydnee:

Protection, privilege... I don't know. Information. Health information. Anyway, look it up. I don't know.

Justin:

Well, don't run your mouth about people. That's for doctors.

Sydnee:

Yeah. Don't talk about people.

Justin:

That's it. That's the whole bit.

Sydnee:

"If I faithfully observe this oath, may I thrive and prosper in my fortune and profession, and live in the estimation of posterity or on breach there of, maybe the reverse be my fate."

Justin:

Dun-dun-dun!

Sydnee:

Exclamation point.

Justin:

Whoa.

Sydnee:

Yes.

Justin:

That's punchy. I, like, that.

Sydnee:

Yeah. So I took something to that effect. Something, like, that.

Justin:

Not that exactly.

Sydnee:

Um, many students would learn the first dissection, like, from their father. And because a lot of these doctors were learning from their dads, who were doctors, and they would learn it when they were little kids. So a lot of people started doing dissections pretty young.

Um, this tradition continued into Roman times and that's when we first really start to see people writing things down and illustrating what they see, especially, like, from dissections. We see Galen drawing pictures of, you know, the inside of the human body, so you can start kind of creating, like, an anatomical text. And you see more medical schools based on these teachings that people are now finally kind of aggregating and writing down.

Justin:

Something approaching more, like, a regimented shared knowledge, more than just dude to dude to dude.

Sydnee:

Exactly. But this didn't always result in, like, practical application. There was a lot of thinking about medicine and writing about it. But again, these people were still in this kind of Greek view of education that, like, at the same time, they're thinking and writing about, like, philosophy. So even people who were really well-versed in medicine might not necessarily make a career out of it.

Justin:

Mm-hmm.

Sydnee:

Um, when we go to, like, medieval times, as you can imagine there weren't a ton of medical schools or people who were seeking higher education, because we kind of, like, things got a little weird for a while.

Justin:

Right.

Sydnee:

We forgot everything we knew.

Justin:

We forgot everything and tried to kill everybody.

Sydnee:

Yeah.

Justin:

All the time.

Sydnee:

There was, there was a great medical school that was established in Salerno in southern Italy. Uh, and you read about this. Any time you want to read about the history of medical education, you're gonna read about this med school.

And it was supposedly started by representatives from the... There were four different medical traditions that were kind of respected and practiced at the time. Uh, we've kind of talked about the Greek and the Latin traditions. But there was also the Arabic tradition of medicine and the Jewish tradition of medicine. And they had masters from the four different traditions come together and form this school.

And students would come from all over the old world to study there. And they dissected animals. I don't think they did a lot of actual cadaver dissection, but they... I don't know. So you dissected animals, it's kind of, like, biology class.

Justin:

Mm-hmm.

Sydnee:

I don't know that that would help you.

Justin:

No.

Sydnee:

Um, and, but they actually did study texts. Uh, and then, after, you know, men completed their studies, and there is I should say... I say men. There is evidence that maybe some women attended.

Justin:

Snuck in.

Sydnee:

Possibly, but—

Justin:

That Shakespearean love take down and just went for it.

Sydnee:

The Shakespearean love take down.

Justin:

As they call it.

Sydnee:

That's what it's called. But mainly men, and then they went and established schools elsewhere after they had completed their training and went back home. Now, just on a side note, the system of medicine that is being taught in all these schools at this time, is the humors. The four humors that we talked about in a previous episode.

Justin:

Mm-hmm.

Sydnee:

So, yes, we're teaching things in a regimented fashion. I don't know if that's a good thing or a bad thing.

Justin:

We're teaching something.

Sydnee:

We are teaching.

Justin:

Which is maybe better than nothing, but even that in itself is arguable.

Sydnee:

Yeah. I mean, I— We spread these bad ideas all over the place and the main treatments that we were, you know, telling people, if you remember from the four humors, there were some, like, herbal treatments. But there was also, like, diet and exercise, which I mean, that's fine. Um, but then there was also, because of the time period we're talking about, there was a lot of, uh, spiritual teaching as well. So like, prayer and sacrifices to certain saints and stuff. That was also being taught.

Justin:

Mm-hmm.

Sydnee:

Uh, when we get to the Renaissance, that's when we really start to see a lot of different medical schools spreading all over Europe, especially in Italy. I think we've already kind of established this tradition. But then, all over.

Um, when you go to places, like, Oxford and Cambridge, who are around by now, uh, they're teaching something called physic.

Justin:

Hm.

Sydnee:

Which is sort of, like, the, about the human body and medicine, uh, but there's no, there's not a lot of, like, practical application going on there. So

you're reading and talking about stuff, but people aren't actually, like, seeing patients or following doctors around in a lot of these places. Um...

Justin:

They're just kind of learning about it?

Sydnee:

They're just kind of learning, yeah. Just kind of hearing about it. Um, a lot of students would travel to Italy to get more practical training. Uh, there's a lot of talk about theory of disease, but it isn't really until we get to the 17th century, that people are gonna start going to hospitals to train and actually see sick people.

Justin:

Hm.

Sydnee:

Um, and this, but this is an important time period, because this is when we stopped. For a long time, we had all these great pictures and writings by Hippocrates and Galen and all these really smart Greek and Roman dudes and everybody from the past. And we kind of just said, "Well, you know what? Whatever they figured out hundreds of years ago, is probably still right, so let's just..."

Justin:

Right. But those guys already nailed it.

Sydnee:

Let's just read about it and memorize it. But let's not actually try to figure anything out.

Justin:

Hm.

Sydnee:

And in the Renaissance, we actually see the beginnings of, like, critical thinking and the scientific method and people going, "You know, maybe we

should question some of these ideas. Maybe we should try things out on our own and see if we can get better results."

Justin:

"Because nothing we do seems to, like, really have an impact or anything?"

Sydnee:

"Like everybody's still dying."

Justin:

"All the time. So maybe if we had, like, a pill... I just invented the word, pill."

Sydnee:

Just, like, that.

Justin:

There, that's my contribution. What do you guys got?

Sydnee:

This led to a lot more dissections and new drawings and diagrams, and a better understanding of the human body. And it's weird, if you look at drawings of the, like, anatomical drawings from the time, they're all in, like, weird poses. Like, in my anatomy textbook, it was just, like, you know, a body laying there and, like, here's their dissected hand or whatever. But, like, if you look at some of these dissections and the drawings of them from the Renaissance, they're, like, all, like, dramatically posed., like, their arm's up in the air or you know, sprawled over a chair or something.

Justin:

Yeah., like, that bodies exhibit we went to?

Sydnee:

Yeah. Yeah. I don't know why. I'm not entirely sure why that was the fashion, but...

Justin:

It makes a better, it makes a better picture, I guess.

Sydnee:

It just looks cool.

Justin:

Yep.

Sydnee:

Um, after the 1600s, there were, there were more well-respected medical schools all over Europe, so that was great. So all of a sudden, you know, people are learning. This is a time where we're, like, testing things and we're learning new things and we're taking the ideas of the Greeks and the Romans and we're really investigating them and seeing what works and what doesn't.

Um, but again, we're still dealing with, like, general medical knowledge and we're not... A lot of the hospitals aren't letting people have a, like, the students, have a lot of contact with patients.

Um, in London for instance, you actually could learn a lot more if you went to some private, uh, doctors' houses. I mean, I'd say, like, medical schools, but they really weren't medical schools. They were just physicians who were— Had learned a lot and understood a lot and knew that the education that students were getting in hospitals wasn't the best.

Justin:

Mm-hmm.

Sydnee:

So they were like, "Just come to my house," and, you know, I don't know if you paid money or not. I think you did. I think you had to pay money and you could go attend these lectures and learn a heck of a lot more from those people.

Justin:

Hm.

Sydnee:

So you'd just go to a dude's house and listen to these lectures. And if you wanted to be a surgeon, going to these lectures and then sitting for an exam afterwards was usually enough.

Justin:

To care...

Sydnee:

To be, to be— Like, you would pass the exam and you'd be a surgeon and that would be it.

Justin:

Huh.

Sydnee:

Um, it was a lot harder to be a physician. And again, I'm not saying that, like, I'm not needling surgeons. At the time, there was a distinction. And I believe, and I think I've said this before, I believe in the UK, they still refer to surgeons as Sir, as opposed to Doctor.

Justin:

Hm.

Sydnee:

Like, Mister, you know?

Justin:

Yeah.

Sydnee:

Um, or Missus, or Miss. I don't want to leave anybody out. Um, but it, like, I said, it was harder to be a physician. There was more certification. You had to go, uh, go to university. You had to actually get a degree if you wanted to be a physician.

Um, it was also really hard though, to get cadavers at this time, so we're still not doing a, we're not doing a lot of dissection at this period. Remember, we've kind of talked about this before. It was, like, for a while, you could

just do whatever you wanted, and then they were like, "No. Let's stop cutting up cadavers. This is evil."

Justin:

"It's weird. It's weirding everybody out."

Sydney:

And so, since it is hard to become a doctor, you're seeing more and more, like, charlatans in this time period, like, barber surgeons who don't really know what they're doing, who are like, "Yeah, I'm a doctor. See, I wrote it on the sign out front." Um...

Justin:

[snorts] "I've got that whole pole and everything."

Sydney:

And we're seeing a lot of like, we're entering into the patent medicine era, where, like, everybody's a doctor.

Justin:

Wink, wink.

Sydney:

Or at least they say they've got a doctor working for them.

Justin:

In the same way that they're also a Native American.

Sydney:

Yeah.

Justin:

Whatever.

Sydney:

Or they're... Yeah. Or from somewhere that's exotic that you don't know anything about, but...

Justin:

The mysterious Orient.

Sydnee:

... definitely has— [laughs]

Justin:

Yeah.

Sydnee:

Definitely has a cure for whatever your problem is.

Justin:

Syd, I want to hear about what's going on in the U.S. now, more modern times. But I want to take a quick break, uh, if you don't mind, and, uh, I talk about the Max Fun Drive that is happening this week and next.

Uh, we're part of the Maximum Fun that work here on Sawbones. What that means is, uh, we're part of a, uh, local network of podcasts. It's, like, it's not local network, they're kind of all over Earth.

Sydnee:

[laughs]

Justin:

But a network of podcasts, uh, that are funded by, uh, listeners, like, you, yourself, you listening right now, helped make Max Fun shows possible.

What that means is that every year, we come to you and say, "Hey, can you help us continue to make Sawbones and a lot of the other great shows on Maximum Fun?" And you say that, "Sure, how can I do it?" And I say, "Well, you're gonna go to maximumfun.org/donate." Uh, and you're gonna see different levels that you can donate at. Uh, our lowest level is just \$5 a month.

And if you can kick in \$5 a month for Sawbones and then any other shows that you listen to on, uh, on Maximum Fun, we've got a great gift for you. It's exclusive bonus content. Now, this goes back years. I mean, literally, years of bonus content that you can, uh, listen to from every show in the Max Fun network. Uh, tons of great stuff.

We are, uh, we are, uh— Because Syd and I have always wanted to do it, uh, we, uh, we used to host a, uh, Two and a Half Men fan cast for people that had only started listening when Ashton Kutcher took over, called, Losing the Sheen. And, uh, just for giggles, we're gonna record a, uh, commentary for the final episode of that, that you can watch them together and enjoy those, both of those together because we watched it...

Sydnee:

Yeah.

Justin:

And it was amazing.

Sydnee:

And let me just say, if you like this show, that does not necessarily mean you should run out and listen to our old show, Losing the Sheen. [laughs].

Justin:

Right. This is more of a treat for the old fans.

Sydnee:

Yeah.

Justin:

Plus any of you who want to watch it because it really is, not kidding, an amazing hour of television.

Sydnee:

Exactly. And this, um, unlike Losing the Sheen, this will be, as you've come to expect from Sawbones, um, a, uh, expletive free podcast. [laughs].

Justin:

Expletive free podcast [crosstalk 00:23:58]-

Sydnee:

Now, Losing the Sheen, was not. So if you don't like that kind of thing, stay away from it.

Justin:

We, uh, at \$10 a month, you're gonna get all that exclusive bonus content, plus a, uh, tote bag we made just for this drive.

\$20 a month, you get the bag, the content and the, uh, the inflight power pack. That's a mobile device charger, collapsible water bottle, antibacterial wipes, and pilot wings. All with the Max Fun logos. And at \$35 a month, you can get a pair of rocket engraved shot glasses, plus all the other stuff.

Uh, there are more donation levels at \$100 a month and \$200 a month, uh, and, and we've got some great rewards, uh, for those that you can read about on maximumfun.org/donate.

Those donations, when you, uh, sign up to donate, you're gonna tell them what shows you listen to. And your donation is going to be divvied up among those shows, so you are directly supporting the shows that you listen to on Maximum Fun, uh, when you donate to the drive.

We really appreciate it. It's allowed us to, uh, buy microphones and pay for our equipment and pay for hosting costs and all that stuff. Uh, and, and it really does help us to make this show every week. Uh, 'cause we have a baby now, folks, and babies aren't cheap.

Sydnee:

To feed our baby.

Justin:

Feed our baby. Go to...

Sydnee:

She can—

Justin:

... maximumfun.org/donate. Oh, uh, if you already donate to the network, uh, you can upgrade that donation and get all of those gifts. Uh, and also if you're a new donor, we've got challenge donors that are gonna give money every time a new person, uh, signs up. So you, your money is doubly useful, uh if you...

Sydnee:

So let's bankrupt those guys.

Justin:

Let's bankrupt those guys. Go to maximumfun.org/donate right this second. Sydnee, let's bring it over to the Americas and a little bit more modern time.

Sydnee:

So let's talk about the U.S. So, of course initially, people who were doctors in the new world, were basically traveling back to Europe, studying at the schools there and then coming back over here and practicing medicine.

Eventually, some guys got the idea, and I believe this started in Philadelphia, "Hey, why don't we actually start teaching medicine here, cause that's, like, a long trip. It's, like, on a boat."

Justin:

Yeah.

Sydnee:

You can't... We can't fly there yet.

Justin:

And a lot of them don't make it back because sea serpents were so very active in that time period.

Sydnee:

[laughs] So why don't we start teaching medicine in the U.S.? And of course, they did. But as soon as university-based schools popped up, a lot of other schools popped up that had nothing to do with universities and maybe nothing to do with medicine.

Justin:

Ah.

Sydnee:

But they were really good at making money.

Justin:

Perfect.

Sydnee:

And for a while, that was how a med school was judged, how good they were at making money. There were also a lot of—

Justin:

That's how I judge everybody and every entity.

Sydnee:

[laughs]. There were also a lot of doctors who just declared themselves doctors after various lengths of apprenticeship with who knows who, for how long, doing what, um, but just called themselves doctors. So eventually we had formal licensing and Board certification, in the late 1800s and the early 1900s this became a thing. Uh, so that when somebody told you they were a doctor, they were held to certain standards. And they actually had to go to medical school. And then we started holding our medical schools to certain standards, so that... You know?

Justin:

Mm-hmm.

Sydnee:

You couldn't, you couldn't charge somebody to teach them how to be a doctor if you didn't actually know how to be a doctor yourself.

Um, the hard part after this was just getting hospitals to kind of jump on board. There were the schools, they were associated with the universities, the didactic education, the lectures, and whatnot was good, but we needed to send students into hospitals so they could actually see patients. And a lot of the hospitals were like, "You know, we're really... No. We don't want that. That's just—"

Justin:

That's interesting. So there was, like, a disconnect between... I wonder if that was a generational thing, like, they grew up without fancy medical schools. What do they need a student running around biting at their heels for?

Sydnee:

Well, and I don't know if it was also just we are charging our patients a lot of money and we don't, like, we want them to have a good experience so they'll keep coming back. And we don't want a student in the room. I don't know if that was part of the problem.

But anyway, so they were offered a lot of money to partner with schools. A lot of them said, "No," even after being offered money. There were even actually separate entrances for med students in some hospitals.

Justin:

Oh, my gosh.

Sydnee:

Yeah, so you wouldn't know they had 'em. But eventually the hospitals that did accept students saw the benefit of once you're an academic institution, you know, it's clear that you're on the cutting edge. You know what the biggest, newest thing is. You do better. Your hospital is better. And so then...

Justin:

The first crack at the new, the new people coming up the ranks.

Sydnee:

Well, and so you're associated with universities so you're doing research and you're constantly on the, you know, on the brink of what's coming next. So...

Justin:

Sure.

Sydnee:

And there's a lot of money there too. So anyway, this idea started to change. In 1927, the first residency was established, and that made all of our lives miserable forever. I shouldn't say that. It's a tough time. And since then we have, we had a lot of changes. So we have medical school, we have residency, and obviously, we all have to take certification exams and be licensed and whatnot.

Justin:

Uh. Well Syd, that brings me to a, uh, something else I'd, like, to talk about. Can you tell... I want to talk a little bit about just sort of your... I think using your, uh, career as sort of, like, a case study for how this goes. Because it's an interesting process that when you and I were going through it, I had no idea how a, um, a regular Joe College, becomes a, um, physician. So maybe we can walk through just, like, a brief chronology of how you got to be a doctor.

Sydnee:

Sure. Well, and I think this will be interesting too, for anybody who doesn't live in the U.S. because I think we have a different system than a lot of the places.

Justin:

Right. Yeah, yeah. We should mention this is just for here in the Americas.

Sydnee:

Mm-hmm.

Justin:

So you had a... What did you major in, in college?

Sydnee:

So I majored in Biology in college. You don't have to actually major in a science to go to medical school. There are just certain core science classes that you have to take in order to go to medical... To sit for...

Justin:

Just to have, like, a basis of...

Sydnee:

Well, yeah. Just to go to medical school. They, they look for certain chemistry and biology classes and physics classes that you took, and then you have to take the MCAT exam, which is just a big...

Justin:

What's that?

Sydnee:

The MCAT.

Justin:

What is that? Not what it stands for. That doesn't matter. Like, what is it?

Sydnee:

Uh, it's like, uh, it's sort of, like, the ACT or SAT, but for med school.

Justin:

Okay. Yeah, I get that.

Sydnee:

Same idea.

Justin:

The M's probably medicine.

Sydnee:

Yeah.

Justin:

That, that much I'm pretty sure of.

Sydnee:

I don't know what anything stands for. [laughs].

Justin:

The T's probably test. The A is probably aptitude.

Sydnee:

Certa... no. Aptitude. Yeah.

Justin:

Okay. Somewhere in there, there's a C. Just trust us on this one. That was not on the quiz. That's not on the test.

Sydnee:

It's a really hard test that you take to get into medical school. [laughs].

Justin:

What it stands for is not one of the questions.

Sydnee:

No. I did really well on it! I just don't know what it stands for.

Justin:

Fair.

Sydnee:

So I, so I chose to major in Biology because I liked that and minored in Chemistry by default 'cause I had to take so many chemistry classes to go to med school.

Justin:

Okay.

Sydnee:

Um, and once you... So you, you go to college. You take the right courses. You apply to medical school. You have to take the MCAT. And there's no, like, certain score you have to get, to get into med school. It just increases your chances if you do better on the MCAT and you have good grades, and then good... You know, all the other stuff. Just, like, getting into college, except I would say, probably harder.

Justin:

Yeah.

Sydnee:

Uh, then you go to medical school, which is four years. Uh, go ahead.

Justin:

Yeah. What's the, in the first year is a lot. I remember your first year really clearly, because there was a lot of you locking yourself in a room and just, like, hardcore memorizing a lot of stuff.

Sydnee:

That's really the first two years. The first two years of, of most medical schools are very much, um, lectures and didactic sessions. Um, we do our anatomy training then, so that's when we actually do cadaver lab and do all of our dissecting and kind of learn the human body firsthand. Um, and there's tons of memorization. It's like learning a new language at first, because you have to, I mean, you know... It's interesting. I always used to think about that when I would take anatomy tests. Like, all the answers are right here inside me. [giggles] Literally.

Justin:

If I could just pop myself open for a peekaroo.

Sydnee:

I just don't know what— I don't know what they're called. Um, no, but the first two years are really intense. And if you know any medical students, you'll know that they just, you just spend hours and hours studying the first couple of years.

Justin:

Yeah. There's a lot of, like, 3:00 AM study sessions, I remember.

Sydnee:

Oh, yeah. And, and at the end of your first two years, you take step one of your Board examinations. At which, alludes to the fact that there are multiple steps and that's probably the hardest test. I say the MCAT's really hard. That's probably the hardest test I've ever taken. And it's everything you learned in your first two years of med school in one big test.

Justin:

Woof.

Sydnee:

And you have to pass it to move on. Um, and it dictates where you're gonna go for residency later, like, how well you did, what you're eligible for.

Uh, so then, you actually get to start doing fun stuff. So your third year, is usually largely clerkships, meaning that you rotate through...

Justin:

That does, that sounds fun.

Sydnee:

[laughs] Clerkships?

Justin:

Clerkships?

Sydnee:

It is fun. You rotate through the different medical specialties, uh, and you work, like, firsthand with patients and doctors and residents and you actually get to go do stuff.

Justin:

Mm-hmm.

Sydnee:

Um, and that's great, and that's when, you know...

Justin:

And you go through all the different departments, right?

Sydnee:

Yes. So for me, it was really helpful because I went into medical school thinking I was gonna be an infectious disease specialist. And after I did all my clerkships, I realized that I kind of wanted to broaden what I was interested in and go into family medicine, because I liked everything I did.

And that's what they always tell you, if you do all of your clerkships and you love everything, you should probably do family medicine because that, that's a good swath of everything you can do in medicine.

Justin:

A lot of variety.

Sydnee:

Yeah. And you can, you can tailor it to what you, like, to do as well. So, uh, so then your fourth year of medical school, you can spend time, um, for one, there's a lot of time to go interview places because you're about to do your residency. But then, you can take some extra, like, uh, clerkship type classes in what you are interested in.

And you can do what we call, sub-internships, in those areas, where you go and you really work like a resident even though you're not a resident. And you're supervised, of course, but you can kind of, uh, get a taste for what you, what you're gonna be going into. And then, there's a lot time to do, like, fun extra stuff., like, I got to do a really cool health department rotation.

Justin:

[laughs]

Sydnee:

Doesn't that sound cool?

Justin:

Yeah, it sounds cool.

Sydnee:

I got to learn about vaccines. I got to go inspect restaurants. It was awesome.

Justin:

Hey, talk about the match for a second, because that's a really bizarre concept, I think, to a lot of people who don't know.

Sydnee:

So, during your fourth year, you're interviewing at programs, uh, residency programs in the specialty that you're choosing. So for me, that was family medicine. Once you've interviewed at all the places that, well, that you

wanted to interview at and would see you... You know, you apply for an interview and they say, "Yes," or "No."

So once you're done with that, you're gonna make a list of all the programs that you like, in the order that you like them. The top one being the one that you want to end up at. At the same time, every program in the country is making a list of all the people they interviewed. Um, with the students they want the most at the top of the list and the least at the bottom of the list.

Justin:

Both of these lists are closely guarded secrets.

Sydnee:

Exactly. And there's a lot of rules about what you can ask and what you can't ask on these interviews. And you can never ask a student like, "Where are you ranked in our program," and that kind of thing. It's all very hush, hush.

Um, but then they take all these lists and they put them into a big algorithm and then on match day, which actually is coming up at the end of this week, you get a letter that tells you where you're gonna spend the next three to five years of your life.

Justin:

Wow.

Sydnee:

Yeah. And hopefully it's the school you— It's the place you chose, but not necessarily. And depending on what you want to go into, it's more competitive. You may not even get into the specialty you want to, you want to do a residency in.

Justin:

And some people don't match anywhere. What do they do?

Sydnee:

Yeah. So if you... Let's say that you, especially if you wanted to go into something really competitive, like, maybe dermatology, that's a really competitive residency, if you don't match one of the spots, meaning they're all full and you didn't get one, then there's a process, a week long process

called, it again, with the abbreviations, everything in medicine. It's called, SOAP. Um, it used to be called SCRAMBLE. We don't call it that anymore. But it's when you have to—

Justin:

It has a negative connotation.

Sydnee:

Yes, it does. It does. Uh, SOAP stands for it's, like, a secondary open something, application, something.

Justin:

Placement [crosstalk] maybe?

Sydnee:

Secondary open application period?

Justin:

Yeah. That sounds good.

Sydnee:

I don't know. Something. Anyway, so where you go apply to every program that didn't fill and every student that didn't get to a program gets to kind of... You try to meet and greet and match and secondary match basically.

Justin:

You all log onto Match.com.

Sydnee:

[laughs].

Justin:

Put in their likes and dislikes, favorite films, albums, food.

Sydnee:

And then, uh, on... And then, like, I said, everybody finds out where they're going and that's where you spend, depending on what you go into, the next, like I said, the next three to five years of your life. For me, it was three

years 'cause I did family medicine. And so, my... You know, when we talk about interns, everybody always wants to know what this is. What is an intern?

Justin:

Mm-hmm.

Sydnee:

Intern is—

Justin:

It's confusing 'cause they use it differently.

Sydnee:

Yeah. Intern is the word we use for a first year resident. So it's the same thing. An intern is a resident. It's just their first year, they're an intern and then after that they're just called a resident.

Justin:

And a resident is an actual doctor?

Sydnee:

Yes.

Justin:

They're sort of, uh, maybe a probationary doctor. Is that accurate?

Sydnee:

Yeah. Well, sort of. You're a doctor once you finish medical school.

Justin:

Okay.

Sydnee:

After you finish medical school you get an MD or a DO and you're a doctor. That's it. And they can't take that away from you.

Justin:

Right.

Sydnee:

But at that point, if you want to be Board certified in a specialty, you have to complete a residency. And nowadays, it's much more important. You used to be able to just finish medical school, do a year of internship at anything and be a general practitioner. And while you can do that, more and more that's not what hospitals and different places that are gonna hire you are looking for.

Justin:

Mm-hmm.

Sydnee:

They want you to be Board certified in something. So after your first year, your intern year is over. And I should mention, in your fourth year of med school, you take step two of the exams, the Board exams. And in your first year of internship, you take step three.

Justin:

Right.

Sydnee:

You finish your residency. Like I said, it could be up to five years, like, for surgery.

Justin:

Residency's when they have also specifically, the intern year, when they have their really crazy hours. Right? You would work, like, 40 hour shifts, right?

Sydnee:

Uh, I would never say that, like, for public knowledge.

Justin:

I thought that was like...

Sydnee:

I was never allowed. I mean, I was only allowed to work 30 hours. [laughs]

Justin:

Well, okay.

Sydnee:

So I never violated work hours, if that's what you mean.

Justin:

Maybe I just remembered it wrong. I probably just remembered it wrong.
[crosstalk]

Sydnee:

The work hours are— You're not allowed to work more than 80 hours a week. And 30, and well, actually, this is different now. Work hours are more strict than they were when I came through, but 30 hour shifts.

Justin:

I bet you never let the students forget that, do you?

Sydnee:

Uh-uh. Nope. I tell them that all the time. "It used to be harder, you know." [laughs]. "Now you only have to work 16 hours. You know, it used to be 30." Um, but yeah, when somebody's in residency, they're just, like, that's their whole life. That's all you do.

Justin:

Right. Yeah. Right.

Sydnee:

You live and breathe and eat and sleep and, well, rarely sleep, at the hospital.

Justin:

Sydnee, Sydnee one time got off of a shift and when straight to a play that her little sister, Rileigh, was doing. And one of the, uh, scenes, the little skits that they did where was, uh, they had signs that they had written on about what kind of person they were or something. And Sydnee literally started

crying, just 'cause she... And I looked at her like, "What are you doing?" She's like, "It's just beautiful. It's so beautiful." Like, "Okay, it's time to go."

Sydnee:

I was on my surgery rotation and I was pulling every other night call shifts. It was a hard time.

Justin:

It's rough.

Sydnee:

Yeah. So, anyway, you survive your residency. You work 80 hour weeks. You're exhausted. And at the end, you sit for... Well, you're done with your residency. So now you're a... Well, I mean, you've already been a doctor. But as long as you pass your Board exam in that specialty, so for me it was family medicine Boards, then you are a Board certified whatever doctor. Me, a family doctor.

Justin:

And you have to go get a job.

Sydnee:

And then you got to get a job.

Justin:

Ta da.

Sydnee:

Then you've got to pay back your student loans.

Justin:

Da da.

Sydnee:

Sorry about that.

Justin:

Uh, thanks folks, for listening to our special Max Fun Drive episode. Uh, I want to remind you again, that address to, is maximumfun.org/donate. Let them know you listen to Sawbones, and—

Sydnee:

Yeah. Speaking of student loans, I've still got a lot to pay back.

Justin:

Help us out here folks.

Sydnee:

Help me out. Come on.

Justin:

Uh, uh, you can, uh, and be sure to, to say, "Hey," to us on Twitter so we can thank you for, for donating, uh, @SydneeMcElroy is her, S-Y-D-N-E-E, and I'm @JustinMcElroy, just like it sounds. Uh, maximumfun.org/donate. Last time I'll ask, please, please, please. If, if you can spare a few bucks a month, it really would mean a lot to us.

Uh, thanks to the Taxpayers for letting us use their song, Medicines, as the intro and outro of our program. Thanks Maximum Fun for having us on. Thank you to you for listening. Uh, thanks to people who are already, uh, giving to Sawbones and, uh, tweeting about it.

Folks like, uh, Sarah Bay, Ellie Jacklyn, uh, Shawn C., Anna, uh, R. Snyder, Jeremy Frank, uh, Katrina, uh, Awesome Monster, uh, many, many others, Cruz Flores, Kale Rex, Amanda, Justine, so many others. Thank you so much for donating to our program. You're really helping us out. Syd, I think that's gonna do it for us old buddy.

Sydnee:

I think so. Thank you guys, again, and, uh...

Justin:

Let's go watch the Two and a Half Men finale [laughing].

Sydnee:

Yeah, and we'll see you guys next Tuesday.

Justin:

Uh, until then, I'm Justin McElroy.

Sydnee:

I'm Sydnee McElroy.

Justin:

As always, don't drill a hole in your head.

[theme music plays]

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