Sawbones 182: The 80-Hour Work Week

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Clint: 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 music plays]

Justin: Hello everybody and welcome to Sawbones: A Marital Tour of Misguided Medicine. I'm your cohost Justin Tyler McElroy.

Sydnee: And I'm Sydnee Smirl McElroy.

Justin: That's good. That's not as much authority as I put behind it, but you'll get used to it.

Sydnee: I never know when you're gonna throw that middle name curveball in there—

Justin: Mm-hmm.

Sydnee: So, I'm not re—

Justin: My middle name actually is Curveball. My name's Justin Curveball McElroy. Curveball is my middle name.

Sydnee: It'd be a great name for an extra child.

Justin: [snorts] If we have another child, Curveball.

Sydnee: Curveball McElroy.

Justin: You— you've heard it here first.

Sydnee: [laughs]

Justin: Curveball will be the name.

Sydnee: No, that's not— no.

Justin: Sorry that we're late by the way. Uh it can get a little much sometimes. I was traveling like all week. We were in one of our [crosstalk]

Sydnee: Yeah. We were— I—we went to a medical conference—

Justin: Heroin show.

Sydnee: No, not a heroin show.

Justin: A heroin—

Sydnee: Prescription drug abuse and heroin summit.

Justin: That— that's right. I didn't go to it.

Sydnee: No. I did.

Justin: I went to the zoo.

Sydnee: I did.

Justin: And the aquarium. I went to the zoo with— we went to the zoo with Stuff You Should Know's own Chuck, and it was, uh, delightful.

Sydnee: Yeah. We had a wonderful time.

Justin: We had a wonderful time there in Atlanta. Um but uh it— it—

Sydnee: Then Justin was gone with work—

Justin: Yeah.

Sydnee: And we have a baby and—

Justin: It can be tough finding time to—

Sydnee: We just get really busy and we're sorry we're late.

Justin: This is nothing compared to how it would have been if we had tried to do a show while you were still a resident.

Sydnee: Yes. Now, back in those days there were no— there were no extra hours. There were no evenings or weekends or lunchbreaks or dinner breaks or breakfast breaks or showers—

Justin: Or sleep, sometimes.

Sydnee: Or sleep. Or eating. What did I do?

Justin: Just—

Sydnee: Did I pee?

Justin: You-

Sydnee: Did I pee at all?

Justin: It was—

Sydnee: In those three years?

Justin: There was some peeing. Um, I remember you, um…

Sydnee: I remember coming home and you making me soup.

Justin: I did that a lot. Yeah.

Sydnee: Before I passed out in bed, eating soup.

Justin: I remember a couple of times you looked for, uh, we spent some time looking for other things you can do with a medical degree besides be a doctor.

Sydnee: [laughs]

Justin: I think there was a brief flirtation with becoming a doctor lawyer.

Sydnee: Uh-huh.

Justin: Yeah.

Sydnee: Yeah. Anything to get me out of the hospital.

Justin: Now I understand you want to tell the folks in the Sawbones listener family, uh, talk a little bit more about why that's like that.

Sydnee: Right. So, we've— I've actually we've had a lot of tweets and Facebook posts and things mentioning that we should talk about residency work hours and duty hours, and Thomas sent us an email about, so he gets thanked for this.

Justin: Thank you Thomas.

Sydnee: Because he sent the email and um, thank you to everybody else who suggested it too, it's just harder to search emails. Search.

Justin: Yeah.

Sydnee: Uh, so it's interesting because I think that we are all familiar with the idea that people in training to be a doctor work really long hours.

Justin: Mm-hm.

Sydnee: But then the question is always why?

Justin: Why?

Sydnee: And isn’t that dangerous?

Justin: Mm-hmm.

Sydnee: And then you see reports in the media about changes in work hours that are always kind of overly dramatic. If you know the whole history and you live in that world the reports can sound kind of silly sometimes.

Justin: Mm-hmm.

Sydnee: Uh, but how did we end up here?

Justin: I don’t know.

Sydnee: I mean—

Justin: It's a lot. It's— it's staggering. I mean it seems unreal. Do you— are you— I'm assuming you're going to talk about what it's like these days later.

Sydnee: Yes.

Justin: But do you wanna give a, generally so people know, it's not just about, you know, it's not a few hours more than a regular human being works.

Sydnee: No. We're gonna get to it but in general think about an 80-hour work week as being fairly standard.

Justin: Wow. okay. So how did we— how did we get here, Syd?

Sydnee: How did we get here? And let me be clear too, I'm— this evolution is slightly different depending on where you live in the world, so this is mainly the US medical system.

Justin: Sure.

Sydnee: This is how we do training here. I know the rules— I know that's been a hotly debated topic in the UK for instance. I know junior doctors have

been protesting for their work hours and rights and pay and all kinds of issues. I'm not covering that history because I'm more familiar with the US system, just to be clear.

Justin: Sure.

Sydnee: Uh, training physicians has always been a very intense process. Historically when you were a resident, meaning you're done with medical school but you're not yet out there on your own, you're in that intern-residency period and—

Justin: Apprenticeship.

Sydnee: An apprenticeship of sorts. Yes, and think about it this way, um when you hear those words, because a lot of people say what's the difference, an intern or resident, what do you mean. Residency is somewhere between typically three and five years.

Justin: Mm.

Sydnee: Depending on what specialty you're in. And whatever residency you're in, the first year of it is called your intern year.

Justin: Okay.

Sydnee: That's all it is. An intern is a first-year resident.

Justin: Got it.

Sydnee: After that, you're a resident. That's it. Um and historically your training was 24 hours a day, seven days a week. You were called a resident because you were a resident of the hospital.

Justin: Like you live there, basically.

Sydnee: Like you live there.

Justin: Like the hunchback of Notre dame, you just sort of…

Sydnee: You just live there.

Justin: You just live there in the bowels of the facility.

Sydnee: And the idea was that it was supposed to be this extremely intense, immersive period of your life. Very brief. Where you devoted your mind body and soul to learning medicine and then you would come out the other end and be a physician and go out there and do whatever you want to do on your own. Uh, in general interns, so first year residents, were on call every other night. Every other night you stayed up all night long and took care of all the patients.

Justin: Mm-hmm.

Sydnee: And residents were on call every third. So, after your first year you graduated to getting to be up all night every third night.

Justin: Oh gosh.

Sydnee: Uh, you made very little money. Like one doctor referenced making twenty-five dollars a month.

Justin: Wow.

Sydnee: When he was in residency. And you did what we call the scut work in the hospital. Now what we call scut work now, and that term is pretty universal in medicine.

Justin: Sure.

Sydnee: But what we call—

Justin: I think it's universal universally.

Sydnee: Oh, is it?

Justin: Yeah.

Sydnee: Well, what we call scut work in the medical world now is different from what scut work was back then. So now when I— when my residents complain about scut work, we're talking about all the paperwork we have to do like vaccine and signing stuff and sitting at a computer and endlessly doing notes and you know and then people from, uh, documentation come in and tell you need to clarify this further and that— that's the kind of stuff people think of as scut work.

What scut work was back in the day was everything that happens to a patient in the hospital. So, imagine in a modern hospital this can seem odd for most people.

Justin: Mm-hm.

Sydnee: The doctor who actually sees you and admits you to the hospital would also be the one who took your blood. Who started your IV. Who took you to the x-ray suite and performed your x-rays themself. Who administered your medications. Who then went and took your blood that they've already drawn from you to the lab and ran lab analyses and ran urine analyses and transported you from room to room. When you get moved from one room to the other, your doctor is the one actually wheeling you from room to room. Even like your EKG, your doctor might be the one running your EKG and also maybe he even made those electrodes out of coins, because I did read that report as well.

Justin: Wow.

Sydnee: Making, uh, quarters were made of silver back in the day. Making electrodes out of quarters and running your own EKG. So, scut work used to encompass all the stuff that we now think of there are a lot of other health professionals who work in the hospitals that do that. Doctors did all that too. So, you can imagine that during your call shift, it was more than just making medical decisions, you were nonstop busy.

Justin: Now I wanted to make an addendum here. I did a quick google search to back up my claim about scut work being a universal term.

Sydnee: Mm-hmm.

Justin: And scut work actually does date back to being medical jargon from the 1960s.

Sydnee: Mm.

Justin: Scut was a sort of derogatory way of referring to a junior intern.

Sydnee: Oh, okay.

Justin: They called them a scut. Now that probably goes back to an informal Irish slang that meant a person perceived as foolish, contemptable, or objectionable. Uh, and that's what a scut was. So, it was adopted as medical jargon—

Sydnee: I didn't realize that.

Justin: And scut work in like the 60s.

Sydnee: I didn't know the history then. We still talk about scut work up to this day.

Justin: Yeah. Scut is actually is also the short tail of a deer or rabbit, so that could also be that.

Sydnee: So now we know that too.

Justin: So, there you go.

Sydnee: Thank you for that— for this week's segment of Justin Googled It.

Justin: [laughs] Justin Googled It.

Sydnee: Uh prior to the 1900s, American med school graduates would often go abroad for clinical training. So, you would finish your med school and you might go to Europe to rotate through hospitals there uh because there was— that wasn't really a codified part of the American medical training yet.

Justin: Mm.

Sydnee: Um, they brought back this idea though, and so we started creating internships in the US in the early 1900s. Now, originally this was just a year. So, you finish medical school where you actually like formally sat in classrooms and learned about stuff.

Justin: Mm-hmm.

Sydnee: You finished that, and you would spend a year either rotating through various hospitals and specialties, that would be called a rotating internship, or you would do what they would call straight internship, meaning I already know what I kind of want to do with my life, so I'm gonna devote my entire intern year to that thing.

Justin: Right.

Sydnee: You would do this intern year and live exactly like I just described. You would— that was where we get these terms residence come from or house staff or house officer. I get that. Like I still hear that floated around today. Although we usually don't call them that anymore, but you might be the house officer and you— because you lived there. You were the officer of the house. You lived there and you trained for a year.

Justin: Mm-hm.

Sydnee: And also, you should know, a lot of the doctors at the time in the US were young, unmarried men.

Justin: Mm-hm.

Sydnee: So, they had— they were supposed to have nothing else to do.

Justin: Yeah, it's kind of seems to almost be self-selecting. Like you have to be of a certain, uh, also economic, like nobody financially dependent on you.

Sydnee: Right.

Justin: Obviously and uh, yeah that would make sense that those two would go hand in hand.

Sydnee: Yeah. It was— it was recommended, I think Osler actually recommended to doctors like, "Just don't bother getting married. You're— this is— this is your life. This is your love. This is your passion. Don't bother with marriage or if you do, it better be somebody pretty understanding."

Justin: And luckily for you, it was.

Sydnee: [laughs] It's not that bad now.

Justin: A cool customer.

Sydnee: Not that bad now.

Justin: Just heart as big as all outdoors, Syd.

Sydnee: Well, that's fair. After 1930, the internship year began to grow into what we think of as the residency. And a lot of this happened as things became more specialized, and as we see that and we see specialty boards arising, we see the need for longer training and more intense specialty-specific training.

Justin: Mm.

Sydnee: You know, if we're gonna do all these surgeries now, we actually need you to spend several years doing the surgeries. Not just one year sort of doing them and then go off on your own and do them. And then what also changed is that the hospitals that these interns and residents would work in would kind of become associated with that. So, like this is a hospital that accepts residents and so they are focused on education and training and research.

Justin: Mm-hmm.

Sydnee: So, a lot of the patients who went there would be subjects in their research.

Justin: Mm-hmm.

Sydnee: But they also would provide care— they considered themselves like charitable organizations. We provide care for people who maybe couldn't get it otherwise. That they were serving people while expanding our medical knowledge base, was kind of the idea.

Justin: That makes sense.

Sydnee: Now, after World War II as medicine becomes even more specialized and technology advances and again, we need resi— we need doctors to do these longer residencies. We start seeing an expanded number of hospitals offer residencies and take residents.

Justin: Mm.

Sydnee: Because it wasn't, you know, there was this moment in history in where you didn't have to do a residency to be a doctor.

Justin: Mm?

Sydnee: You could just finish medical school and you know, go hang up your shingle and start seeing patients.

Justin: You can do that still. Right?

Sydnee: No.

Justin: You can still be a GP?

Sydnee: Uh you still— yes, but you still have to an intern year and that—

Justin: Oh, okay.

Sydnee: That's kind of falling by the wayside.

Justin: Oh.

Sydnee: Uh, but there was a moment where you could like even go apprentice with somebody unofficially just for your own learning and then— and then go be a doctor.

Justin: Right.

Sydnee: Well at this point we kind of see everybody saying like, "No, we probably need everybody to do a residency. You know, this is important. We're gonna go ahead and recommend that you have to have a residency to be a doctor. At least a year of internship, if not a formal residency." And what also helps with this are the Medicaid and Medicare acts in 1965. So, what this did is Medicare started giving money to hospitals to train residents.

Justin: Mm.

Sydnee: Now hospitals are incentivized to take residents.

Justin: Right.

Sydnee: And this is when you see it really explodes.

Justin: That's kind of the fact that they're getting a lot of cheap labor.

Sydnee: Well, that’s the other thing. Patient care starts to become more and more reliant on having a bunch of cheap residents [laughs]

Justin: Yeah.

Sydnee: Staying up all night doing all the work in your hospital.

Justin: You know it occurs to me that it's almost— there's almost a parallel you could draw between, um, like language immersion. You can take classes and classes and classes, but really until you have— the way you finally become fluent really, is you have to live in the place where the language is being used constantly. It seems like—

Sydnee: Exactly.

Justin: That— uh, so it's kind of necessary to like live in medicine. As much studying as you do, it doesn't really click for you until you get that— is that how it felt for you?

Sydnee: I think that's very true because, you know, you can't predict when you actually go out there and start practicing, you can't predict what like disease states or conditions you're gonna care for first or the most often or, you know, when the first kind of unusual case is gonna come through your door, and so the more exposure you have to everything in training, the better prepared you're gonna be on the other side.

Justin: Mm-hmm.

Sydnee: And so, you know, I could read about a rare disease a thousand times but until I actually have that encounter and manage somebody with it, I'm not gonna be as good. I'm not gonna be as skilled.

Justin: Was there any kind of consistency between these? Anybody sort of like making sure that they all were consistent among the programs?

Sydnee: Uh, not initially. The AMA in 1910 kind of unofficially started listing like, who was a residency and who wasn't.

Justin: Mm-hmm.

Sydnee: Um it wasn't until the 1950s where we see these committees for the various residency programs start to emerge for different specialties that actually started to regulate, you know, these programs.

And then in the 1970s we see the liaison committee for graduate medical education is formed, which transforms into the ACGME which is the governing body over residency and fellowship training. Fellowship is beyond residency. I didn't really talk about that, but everybody has to do a residency. After you're done with your residency, if you want to specialize further you may do a fellowship depending on what you're doing.

Justin: Okay.

Sydnee: I didn't, for instance.

Justin: Mm-hmm.

Sydnee: But that's in the 80s, and then this ACGME is still what governs all the residency programs today and make all the rules for us.

Justin: Okay.

Sydnee: And accredit programs and come and survey and analyze programs periodically to make sure they're doing what they're supposed to be doing.

Justin: Do you know how stringent those rules go, like, uh, are there things like requirements on beds or things like that? Like things that need to be on hand for people doing this. Like how—

Sydnee: Oh, they’re incredibly stringent.

Justin: Yeah.

Sydnee: Everything— yeah, no, that— so you mean like for the residents to sleep in beds?

Justin: Yeah.

Sydnee: Yeah. Oh yeah. Sleeping spaces and appropriate, like, there has to be food available to the residents 24 hours and like there's all kinds of—

Justin: Yeah.

Sydnee: Of rules to make sure that we're being— that residents are being supervised. They're being cared for. They're being— their concerns are being met. You know, I mean, yes, they're very strict. Very strict.

Justin: Mm.

Sydnee: Uh, in the 1970s, people started to wonder about the effects of working really long hours on patient safety, as well as the idea that these residents who were working really long hours, what's the effect on their—

Justin: Yeah.

Sydnee: Health and their mental health—

Justin: Might as well. Yeah.

Sydnee: And wellbeing.

Justin: They got those knifes, you know, the scalpel I guess you call them?

Sydnee: Scalpels. Yeah.

Justin: Might as well check in on them. See if they're all right.

Sydnee: So, some studies started to suggest that maybe we need to have a balance between your working pursuits, your educational pursuits, and your personal pursuits. Maybe that was important.

Justin: Yeah, I can’t even fathom it.

Sydnee: And so, in the early 1980s, the ACGME took the step of attempting to institutionalize this by adding specific statements in the program requirements for graduate medical education and pediatrics and internal medicine. So, in those two specialties, in their program requirements, they said, "Listen, there needs to be a balance." But that was kind of it. [laughs] There should be a balance. You figure out what it is, but you should have a balance.

Justin: We’re not gonna find balance but…

Sydnee: But there was no— there was no definition for that, so throughout the 80s we see this move where medical schools are more focused on research and less on teaching, so supervision in the hospital is suffering.

Justin: Mm-hmm.

Sydnee: Because they don't want faculty in the hospital supervising residents. They want them in the lab making research money for the hospital. And the hospitals are just focused on profits, and so they're like admit the patients, discharge the patients, get them in and out faster, faster, get the beds— I mean, that's how they make the most money.

And resident training really suffered because they're not being supervised closely enough and they're being put under these incredible demands by the hospital to be more efficient, to work harder and faster with no sleep.

Justin: Okay.

Sydnee: Now we already know that sleep deprivation is bad. Right?

Justin: Yes.

Sydnee: We have lots of studies that show—

Justin: Yes, I know that.

Sydnee: That night shift workers and people who are chronically deprived of adequate sleep because of their jobs or whatever, are subject to increased adverse health events and negative impacts on their quality of life. Things like divorce rates are higher among people who don't have normal sleep hours and that kind of thing. Um, we also know that your working memory is bad when you're sleep deprived.

So, it makes sense when you put all that together, and you're in this atmosphere where we see hospitals moving patients in and out quickly, and they're all staffed by all these really exhausted residents and we're starting to get these studies on like, "But sleep deprivation is so terrible and what are we doing with these residents and there's no real rules and what is this gonna do to patient safety?" And it was in this atmosphere that a landmark case unfortunately happened that kind of brought it to national attention.

Justin: What happened?

Sydnee: In 1984, the Libby Zion case is really what made this whole thing explode. This was an 18-year-old woman who was admitted to a New York teaching hospital and she was on a medication and then was given another medication and it resulted in a drug interaction, uh, serotonin syndrome and the patient ended dying. And at— and there was a big court case that followed. It was very publicized, and the end result is that they— the main factor that they felt that contributed to the poor decision making was resident fatigue.

Justin: Mm.

Sydnee: She was managed by two residents who were on like a 36-hour shift and caring for 40 patients at a time. They were not adequately supervised. I would actually— I would actually add that to the case, but either way the big issue that came out of the whole thing was, "How can you have somebody who hasn't slept in 36 hours taking care of a human being and make good decisions?"

Justin: I still don't have an answer to this question Sydnee, and I'll regale with an anecdote to illustrate from your personal history, uh, about that but, are you gonna answer the question first?

Sydnee: I wasn't gonna answer it quite yet.

Justin: What we gotta do?

Sydnee: We gotta go to the billing department.

Justin: Lets go.

[ad break]

Justin: One time when Sydnee had finished with a shift her sister, and my sister in-law, Rileigh was in a theater camp that was performing a show that they had written in the—

Sydnee: And she was like eight.

Justin: Uh she was very little. And—

Sydnee: So, a bunch of eight-year-olds wrote the show. You need to know that.

Justin: Yeah. A bunch of eight-year-olds wrote the show. Okay? This was theater written—

Sydnee: Adorable.

Justin: By eight-year-olds.

Sydnee: But also, hard— maybe a little hard to follow.

Justin: A little bit.

Sydnee: And also, I was sleep deprived.

Justin: And also, I look over at the end of the show and I'm kind of like, "That was very cute. I don’t understand any of what happened." Sydnee sobbing.

Sydnee: [laughs]

Justin: Sobbing at how beautiful the theater that she just witnessed was because she had come directly from the hospitals after one of these—

Sydnee: It was probably a thirty-hour shift. Well, I think I was on surgery at the time, so maybe longer.

Justin: Sydnee, how did this start to change and how much has it changed and why hasn’t it changed more and all that?

Sydnee: So, I'll get to that. So, the ACGME task force on resident hours and supervision was created and in February of 1988, they came out with some

guidelines. Here were the original guidelines. First, you have to have one day off in seven on average.

Justin: Mm-hmm.

Sydnee: On average over a month. One in seven days.

Justin: Okay.

Sydnee: Second, you can’t be on call more than every third night. No more every other night. Now it's every third night. Third, you have to have adequate back up available just in case let's say because a resident has a particularly arduous shift and they just can’t make it to the end. You gotta have somebody who can step in and take over if that resident basically tags out.

Justin: Right.

Sydnee: And says, "I give. I gotta go. I don’t know what's happening." And fourth, there has to be appropriate supervision of all residents with like an open line of communication between the residents and their supervising attendee at all times.

Justin: Right. We still get calls even though Sydnee's not a resident anymore, when she's an attendee who's covering the service at that point. You still get calls at all hours.

Sydnee: Exactly.

Justin: I'm not complaining. I know it's important.

Sydnee: No, it is.

Justin: I'm complaining a little bit because it's— I mean, I didn’t sign up for this life.

Sydnee: [laughs]

Justin: It's not fair.

Sydnee: You did when you married me.

Justin: Yeah, fair enough. Okay. Agreed.

Sydnee: It was left up to the individual specialties to regulate hours any further than that. Those were the original only rules. And this was the 80s. Like, this is like ‘88 and they just now made any rules at all.

Justin: Right.

Sydnee: Up until then there were zero rules on how much you can work. So, they said basically like, "And then we'll leave it up to all you different medical specialties to decide what's best for yours." In ‘89, internal medicine specialty created the concept of the 80-hour work week, and basically within a year, all the other specialties said, "You know what, that sounds like a good idea, why don't we all adopt it too." So, of their own free will, everybody decided that 80 hours was enough averaged over four weeks. 80 hours was enough for people to work.

Justin: Okay.

Sydnee: That— I always throw in the average over four weeks because it gives you some wiggle room.

Justin: Because you can work, just kick out a little bit early the next week.

Sydnee: Exactly. So, it gives you wiggle room. It's same with the one day off in seven. I mean I—

Justin: And 80 hours is like, in context what we're talking about here, 80 hours was seen as a mercy. Right? Like 80 hours—

Sydnee: Oh yeah.

Justin: Was like, "Well, I guess. If we have to limit it to 80 hours, we will."

Sydnee: No that very much was, and like the physicians that— some of the older physicians that trained under would say things like that, rolled their eyes about "80 hours, like you guys think that's so long. Like, that was nothing back in the day."

Justin: Right.

Sydnee: I remember one physician looking at me and saying, you know, the residents were debating who was on call the next night and they couldn't remember the schedule, and he said uh, "You know how I remembered what night I was on call? If I wasn't on call last night, I was on call tonight."

Justin: Ugh. Ugh.

Sydnee: Uh throughout the 90s, there were several highly publicized cases of medical errors. You really see like this focus in the US where the media really likes hones in on the idea that "I think maybe, people are making mistakes in hospitals." This is the first time that this is— I mean we know that this happens now.

Justin: Mm.

Sydnee: This isn't news now, but this was and there were several really highly publicized cases of things like wrong site surgery. Meaning like, cutting off the wrong limb, kind of errors. Major errors. There was a prominent reporter who was given an overdose of a chemo drug. There were all kinds of medication errors. And this brought the argument over physician duty hours back to the forefront again and said like, "80 hours a week, you limited it to that, and you think that's enough?"

Justin: Mm-hmm.

Sydnee: And then on top of that, in 1999, the Institute of Medicine issued this report called To Err is Human: Building a Safer Health System and in it, they said, "You know what? There are probably somewhere between 48 thousand and 98 thousand deaths from medical errors in the US each year." And without really a great cause as to why, just that this is happening, and you put this on top of people already being aware of all these long hours

residents work and they're in training and so, you get this public demand, "Somebody's gotta do something."

Justin: Listen, we don't understand this system, but we know it's bad.

Sydnee: But we know it's bad and we want somebody to fix it. And actually, congress even threatened, "Listen, ACGME, either regulate yourself, or we're gonna come do it for you."

Justin: Mm.

Sydnee: So at this point a work group is formed and by 2003— it takes them a while, research takes a while. By 2003, a set of common standards refining hours officially across all specialties was put in place. And this really didn't change a whole lot of what I've already mentioned. It just made it. Like all of these different specialties have kind of voluntarily said they would do this—

Justin: Right.

Sydnee: Well, ACGME is now putting this in, like, any kind last hold outs can't anymore.

Justin: Right. They just codified.

Sydnee: Exactly.

Justin: Got in the, uh, the outliers.

Sydnee: But this wasn't really enough because it was a focus of legislative attention and money and people were starting to put in more research dollars into effect, like, is there an effect on patient care? Can we prove that fatigue actually, you know, does impact patient safety? Because still haven't proven this.

Justin: Okay.

Sydnee: At this point we have no study that says it yet. That's the problem.

Justin: Right.

Sydnee: We have no study that proves that. So again, the Institute of Medicine put together an expert group and said, "We need to come up with some stricter standards." And they did a ton of homework. They had an international symposium and they got like 140 medical organizations involved. They got legal reviews, educational literature reviews. They did all kinds of interviews with doctors, patients, families of patients who they felt had been injured due these errors from fatigued residents.

Justin: Right.

Sydnee: Sleep specialists, safety advisors, quality improvement specialists. They stuck with the 80-hour work week at the end of it all.

Justin: Okay.

Sydnee: In the end, all of the things that they came out with, they stuck with the 80-hour work week, still averaged over four weeks. They added though, that when you're in your intern year, where you're in your first year of residency, you can only do sixteen hours of continuous duty.

Justin: Now this is after you, right?

Sydnee: This is after me.

Justin: This is post you.

Sydnee: Yeah.

Justin: This is not in 2003. This was—

Sydnee: No.

Justin: This was taking on a grip.

Sydnee: This was 2000— yeah, 2005.

Justin: No, because you were in—

Sydnee: 2008.

Justin: We got married in 2000— okay.

Sydnee: 2008. 2008 is when this happened. So, in 2008, they said, "PGY1s, postgraduate year one, meaning first year residents, can only do 16 hours of continuous duty." This was a big shift. We were allowed to do 24 hours of continuous duty with four extra hours as needed for like, finishing things up.

Justin: Mm-hm.

Sydnee: So, like I could spend 28 hours—

Justin: Hey— hey y'all. We know what that means.

Sydnee: [laughs]

Justin: Okay. You can spend— you can't say like the limit, listen hard limit, 24. But if you are in the middle of some things, you can go to 28, like—

Sydnee: And it was really—

Justin: It's 28. Just say that.

Sydnee: It was honestly 30. Like, that was what we all were expected. We expected that for me, pretty much through my residency, every fourth night I spent a 30-hour shift in the hospital, and that was when I was on hospital service. You know, when I did outpatient stuff, it wasn't like that, but that was expected. That was pretty standard.

So anyway, they said, "As an intern, you can only do 16 hours a shift. Everybody else can still do 24 with the four extra bonus hours as needed and, but you have to have 10 hours off between shifts."

Justin: Mm-hmm.

Sydnee: That was, that was new. And also, they— there was a lot about strategic napping.

Justin: Strategic napping? Like polyphasic sleep, basically?

Sydnee: No, just like, if you're going to do these overnight shifts, you need to take strategic naps.

Justin: Yeah, I don’t think they're having to ask anybody to strategic naps. Right? Like I think if you can get a nap in there, you're gonna get one. Right?

Sydnee: It's part of fatigue mitigation train— we all have to go through fatigue mitigation training—

Justin: Oh, okay.

Sydnee: When we're in residency and part of it is strategic napping. I just really always liked that term. Strategic napping.

Justin: Yeah.

Sydnee: They didn't change the Q3, meaning every third night call. They didn’t change the one in seven days off. They did increase supervision of interns.

Justin: Mm.

Sydnee: It really, to tell— like, this impacted our— our program so much that we had to completely rework how we do our hospital service. We had to completely start from the ground up and reorganize how we do it in order to keep— for an intern to keep a senior resident in house with them 24 hours a day. Completely restructured our hospital service.

Justin: Wow, okay.

Sydnee: And we're a busy service, and so it— these were major changes for programs. This doesn't sound like a major change, but it really is.

Justin: Because it's all math, right. It's all x number of people covers—

Sydnee: How many hours and how long can they—

Justin: It's not like you had a lot of wiggle room before. Yeah.

Sydnee: Be supervised by this person and, you know, and that 16-hour shift, the problem with that— because you have to understand, that 16 hours shift for interns, it sounds like nothing, this was a huge deal if you're a residency program director.

Because the concern is, if you were in the hospital for 16 hours, you will see the beginning of a patient's progress and then you will leave and hand them off to someone else and go sleep or whatever. And you won't see the initial, like, all the stuff that goes in to managing that acute phase of illness.

Justin: Mm.

Sydnee: And so, there's real concern that this will impact education and then the other thing is pa— it sounds like this should be better naturally for patient safety, but the other real concern is, what happens in that transition from doctor to doctor. That's a key moment in patient care and that transition is really dangerous.

Justin: Continuity. Right?

Sydnee: Yeah, continuity of care is best, and that transition is really dangerous. But everybody's really tired and so they thought, this will fix the tired and surely everything will get better. So, 2008, these were put in place. It made my senior year of residency just— just a mess.

Justin: Yeah.

Sydnee: Nah, I'm kidding. It wasn't that bad. It did require that I did a whole lot more work my third year of residency than I was anticipating, but

the results after making these changes and about five years later they started looking at everything.

Justin: It all got better.

Sydnee: The results were not very impressive.

Justin: Oh no. [snorts]

Sydnee: Studies of patient morbidity and mortality after the duty hours changed really didn't show much change.

Justin: Mm.

Sydnee: Overall. There were isolated studies that thought they indicated some improvements here and there, but when look at them all over, you know, all the overall impact, there just wasn’t a big major change.

Why? Well, there a lot of reasons. First of all, it's self-report. So, we're basing how many hours a resident works on how many hours they're reporting that they worked.

Justin: Right.

Sydnee: Now here's the problem with that. If I'm a resident and I start reporting that I am routinely working past the duty hours, I am working beyond what I am, you know, supposed to work, the ACGME dictates that I cannot work more than this and I'm doing it anyway, those hours get reported, and the ACGME monitors it. And if that's happening over and over again in a residency program, that residency program will not get accredited again. They'll get shut down eventually. You cannot abuse residents that way and continue to operate.

Justin: Well— but if I'm a resident and my program gets shut down, I'm kind of up the creek without a paddle. Right?

Sydnee: Then you gotta try to find another program to get into.

Justin: Yeah.

Sydnee: And that can be very difficult and especially depending on what specialty you're in. So, there's a lot of pressure on the residents to maybe not report how many hours they're really working.

Justin: Right.

Sydnee: So, one question we've asked is, "Are people really— did this change much?" You know?

Justin: Right.

Sydnee: I mean, did this actually change much? Because we don't know these— what are the actual versus reported hours? Another thing is that there is no protection if you are a whistleblower. Like, it doesn't help you again if your residency gets shut down.

Justin: Right.

Sydnee: That hurts you. Um, and then also there are a lot of confounding variables, because in the same period of time we see like, electronic medical records growing as new thing, and so like there's a lot of other things that we're improving and changing in hospitals, but it's hard to say. So conclusively up to this point, we still have not seen any evidence that resident fatigue actually does lead to increased patient morbidity and mortality.

Justin: Counterintuitive, but I guess a certain, in a sense like if you— you can only get so wet. Right? Like we like to say like, if you're pretty tired after a sixteen-hour shift, you're gonna be pretty tired after a 24 hour— I mean it's like, I don't know that you're so much more tired or so much less tired.

Sydnee: Well, it's hard to say. I mean, you'd think. And that's the tricky thing about science. Sometimes stuff that you seem-- you think like, "Well obviously the answer to this, my hypothesis is that if you stay up 24 hours

and take care of people that you're gonna make a lot of stupid decisions and you're gonna hurt people."

Justin: Mm-hmm.

Sydnee: That seems like a really natural assumption, but until you prove it, you know that's the thing about science, you gotta prove it. You can't just guess it. We can't just imagine that that sounds like that's probably it. We don't make stuff up. We test and prove. We haven't tested this and proven it.

Now, I think it is very fair to say reduced work hours will probably lead to a lot of better quality of life for the residents. Though I think that it would— I think most residents would say that "Well heck yeah. If I can have another day off, a little more time home with my family, a little more sleep, time to pee. Yeah, of course my quality of life would be better." But then what are we—you gotta balance the whole thing. What are you gonna sacrifice for that? Patient safety? Are you gonna sacrifice their maturation as residents? You know, their ability to achieve the level of training they need to.

Justin: Why—

Sydnee: Before they leave.

Justin: I just— I think the continuity of care thing is a valid— I think that's a valid argument. And of course, I'm coming at this as a lay man, but— not lay man. That makes me sound like a superhero whose power is not understanding the thing he's talking about.

Sydnee: [laughs]

Justin: Coming as a layman I understand that. I do not— I cannot see how an extra day off— an extra day off would not affect continuity of care.

Sydnee: There really has been concern from faculty at residency training programs that the shift in work hours impacted how quickly they watched their residents and interns grow and learn and become, just like you said, you've gotta immerse yourself in this world to really perform in it. The

concern is that this does not provide that immersive experience for interns. So, they don't really get that 'til their second year, and it puts them a year behind.

Justin: Mm.

Sydnee: And what they're starting to see is that the interns become sort of removed from the medical team. The interns begin to develop a shift work mentality, which you cannot have in medicine. You can't think of it as your shift and then when you— when your shift is over you clock out and take off. You have to think of it— and I do, and this is important, these are my patients. They're my patients, and even when I'm asleep, I'm responsible for them.

Justin: Mm-hmm.

Sydnee: And there was a lot of concern that, um, there was actually like a big push, "Well, we should apply this sixteen-hour rule to all residents. Not just interns but all, you know, all years of residency should only work a sixteen-hour shift," and they found that their feeling was that this was incompatible with the actual practice of medicine and surgery, to work a sixteen-hour shift, and that it was disruptive to professional altruism, meaning that if this is all you do, you're never gonna be able to develop that natural inclination to put a patient's needs before your own, which is core to our profession, that sometimes we sacrifice what we want and need for somebody else, often in our professional life.

Justin: I also think it's—I think it sucks that the first year is the worst because I think that that was an important psychic thing for you to come to grips with your first year like, "Well, this is as hard as it possibly gets."

Sydnee: Sure.

Justin: So, after this it will be easier. I think it's a bad mental thing to say like, "Actually the second year is longer and harder, but then…"

Sydnee: Yeah.

Justin: You know. I think that's a hard mental hurdle.

Sydnee: It's tricky. I don’t know. A lot of the residents I work with now say they would rather do the 24-hour shift than the sixteen-hour shift.

Justin: Really?

Sydnee: And a lot of programs had to go to a night float system in order to accommodate the sixteen-hour shifts. Meaning that you just come in in the evening, work overnight, go home in the morning and do that for a month. And that universally is dis— well, I shouldn’t say universally it's disliked. Overall people do not prefer it, and we see more negative impact on like quality of life and sleep in a night shift, because it runs contrary to your circadian rhythms all the time.

Justin: So, there's just like no easy answers?

Sydnee: There isn't an easy answer, and there's one more change. Starting July 1st, the old is new again, we, the duty hour section on the ACGME, which by the way has become common program requirements, the learning and working environment, we don't talk about duty hours anymore— the 16-hour shift has been removed. We're going back to 24 for everybody.

Justin: Oh wow.

Sydnee: So just as soon as we changed it, we changed it right back, for all these reasons that I talked about. Basically, hospitals and programs and directors, residents themselves kind of went wild over this and said, "We don't want it." Now of course there was a push back and there were some like, there are no unions. Well, there— no. There are few unions among residents. Uh, generally we're not— not forbidden from unionizing, but we don’t fall under any OSHA protections.

Justin: Mm-hmm.

Sydnee: Because we're governed by the ACGME privately, basically.

Justin: You don't get— well you don't have to be in a union to have OSHA protection.

Sydnee: No but we also don't get OSHA protections, I mean.

Justin: [laughs] Also—

Sydnee: Yeah.

Justin: Sidenote, also.

Sydnee: We— yeah, and we—and it's hard for us to unionize. There are some resident unions, not very many, and they've pushed back against this change. They feel like that for resident quality of life is more important. We need to go to these 16 hours shift and to move in that direction. Um, but it's very complex and there are a lot of people with a lot of different interests involved.

I mean at the end of the day; patient care has to come first. Of course, we also have to be concerned about resident quality of life and obviously we need to train our residents. They have to leave residency able to do the things they're gonna do.

Justin: Mm-hmm.

Sydnee: So, like think about it. If you're a surgeon, how many gallbladders do you have to remove before you can go remove a gallbladder by yourself?

Justin: Seven.

Sydnee: [chuckles]

Justin: Oh sorry. You didn't know?

Sydnee: [laughs] Where did you come up with that?

Justin: That's just the number I picked when you started the sentence. I was leaning into it.

Sydnee: [laughs] But the thing is, if your work hours are shorter, you're gonna remove less gallbladders. And at some point, you're not gonna have removed enough to go out there in the world and remove them on your own. And that's the concern, is that we're gonna have to extend residency even longer than it already is.

Justin: Or get worse gallbladders.

Sydnee: [laughs]

Justin: If everybody just messed their gallbladders up worse.

Sydnee: So, we can get more in that 16 hours.

Justin: Yeah.

Sydnee: No, it's very hard and having lived it, I don't wanna get the mentality which you will see and probably not just in medicine but definitely in medicine of, "Well I did it, so you can too."

Justin: Right.

Sydnee: That's a terrible attitude to have. And there's a lot that makes residents feel like they don't have any control over their life. I mean even the match process, which we didn't even talk about.

Justin: Right.

Sydnee: You don't get to choose where you go for residency. I mean you do sort of. You put it on a list, and you submit it to an algorithm, which then matches you with residency programs that made lists of who they wanted and then at the end of the day you get a letter that tells you where you're going.

Justin: Yeah.

Sydnee: Which makes you feel completely out of control of your life and then you go somewhere where you're working these crazy long hours and you're asking to do— you're being asked to do these very intense, you know, scary things that matter immensely to, you know, everybody, and it's a very scary time in your life, but it also has— it has to be intense to some degree.

Justin: Mm-hmm.

Sydnee: It has to be.

Justin: Yeah.

Sydnee: I think supervision is the key. I think support is the key. I think that constantly— I mean, residents do need to tell the truth. If they're being abused by the programs, if they're working over the work hour limits, they need to be able to tell the truth and feel safe doing that and feel that the ACGME will come help and not necessarily shut down, which is their job. And I'm not saying they won't, it's just that's the fear.

Justin: Yeah.

Sydnee: Um, it's a balancing act.

Justin: Um Sydnee, thank you for this illuminating look into— and honestly some flashbacks on my part of, uh…

Sydnee: [laughs]

Justin: A very difficult period [laughs] in our lives, but…

Sydnee: I just tell the residents all the time, "It's only temporary. It's only temporary and you can do it, and—"

Justin: Hang in there.

Sydnee: And it's not—

Justin: Pain will hurt.

Sydnee: Once you kind of accept that—

Justin: I don't know if that's applicable.

Sydnee: That it's temporary and that what you're doing is gonna make you a good physician and that what you're doing is to take care of people, um, I don't know. It's not so bad. I enjoyed it overall. I enjoyed my residency.

Justin: Um, I wanted to make a quick note of something. Uh— uh we are going to be appearing this week, April 27th, at the Columbus Podcast Festival. Sawbones, Still Buffering, and Court Appointed— the order is actually Still Buffering, Court Appointed, Sawbones.

Sydnee: Mm-hmm.

Justin: Uh, I believe they're at 8, 9, and 10—

Sydnee: 8, 9, and 10.

Justin: At the Columbus Podcast Festival. If you— and tickets are very affordable. I think they're— it's two nights. I think it's $10 for one night, $20 for both. Um but it is very affordable and it's gonna be a great night of podcasting. Great two nights. So, if you want details, search Columbus Podcast Festival and come out and see us. It'll be fun.

Sydnee: Yeah. Please do.

Justin: It'll be fun.

Sydnee: We look forward to it.

Justin: I wanted to say thank you to Maximum Fun Network for having us as a part of their extended podcasting family. Uh, there's tons of great shows on the network. You should go and find yours. This week I'm going to recommend Beef and Dairy Network, which is a podcast about beef and

dairy and news in that industry and it is fascinating. Uh and hilarious, but you gotta listen.

Sydnee: Check it out.

Justin: Go listen. Um, thanks to Taxpayers for letting us use their song ‘Medicines’ as the intro and outro of our program and thank you to everyone for listening. We appreciate you.

Sydnee: Yes. Thank you.

[theme music plays]

Justin: Thank you. And that's gonna do it for us folks, so until next week, my name is Justin McElroy.

Sydnee: I'm Sydnee McElroy.

Justin: And as always don't drill a hole in your head.

[theme music ends]