

Mr. Chris Turner
Behind the Mask
May 26, 2021

Barr: Good morning. Today is May 26, 2021. My name is Gabrielle Barr and I'm the archivist with the Office of NIH History and Stetten Museum, and today I have the pleasure of speaking with Mr. Chris Turner. Mr. Turner is an occupational therapist with the Rehabilitation Medicine Department at the NIH Clinical Center. Today he's going to speak about some of his work with recovering COVID patients. Thank you very much for being with me.

Turner: I'm happy to be here. Thank you.

Barr: So, to start off: what does an occupational therapist do, and how does your job vary from other types of therapies like physical therapy, recreational therapy, and respiratory therapy? There are so many different kinds of therapy out there.

Turner: Sure. So occupational therapy distinguishes itself by looking at the rehabilitation process with patients for their self-care—the things that we do every day that make us independent: bathing, dressing, cooking, cleaning. While there is a physical component to it and a recreation component to it, we primarily look through the lens of self-care and independence.

Barr: Is that just physical or do you also work with people to encourage them mentally and emotionally to do these activities that they once did?

Turner: Yeah absolutely. There is a strong...actually our origins for occupational therapy were rooted in mental health, and so we do quite a bit with the mental health populations and everything from developmental disorders, doing sensory integration, to coping strategies and work community reintegration, to being in the hospital to patients post-surgery or post long ICU stays who are very deconditioned and need to get rehabilitated back to a point where they can go home and take care of themselves.

Barr: I was just wondering before COVID can you speak a little bit about the population of patients with whom you worked?

Turner: Sure. I primarily work with adults and the in-patient setting. Adults who are in a hospital-based setting, I guess is a better way to put it, I would work with here at the NIH. I would work with patients who are on clinical trials for various chemo[therapies] or maybe some type of HIV medications or things of that nature. We do have some post-surgery patients who have various neurological surgeries or abdominal surgeries. We don't dabble too much in the orthopedic realm, but we definitely do a fair amount with oncology and neurology.

Barr: At what point do you usually get involved in a patient's care?

Turner: We can get involved at just about any level. We can do pre-surgical interventions, or before a protocol starts even, just to get a baseline, develop some fundamental skills in the patient to make sure that they're ready for whatever's coming next, and then we can intervene pretty much right after surgery as long as there's nothing that's preventing them from being seen such as surgery complications or low lab values, other things, but those are some of the big ones. We follow them all the way through the point of returning home, and there are branches of occupational therapy that deal with home-based care. So really in occupational therapy you can follow people from before the surgery to all the way to going home and beyond.

Barr: That's interesting. Can you speak about the range of issues that you helped rectify with patients recovering from COVID-19?

Turner: Sure. The patients who are experiencing COVID-19 typically were relatively healthy and active individuals prior to coming in after the onset of COVID-19. The primary issue that they were experiencing were respiratory distress and an inability to maintain enough oxygenation in their blood levels. It is a disease that primarily affects their lungs, but it can also affect some of the artery linings and cause some complications. Really when we're rectifying issues with these patients, we're doing a lot of work with breathing and endurance, a lot of work with activity management so that they can take their normal activities and maybe break them up into smaller pieces to be able to accomplish them as they won't have the stamina or the endurance to finish everything in one shot.

Barr: Interesting. Are you working with any long-hauler patients currently?

Turner: I am currently not. There are some various protocols going on here, but I think from a rehab standpoint we aren't following necessarily any specific patients for anything long-term pretty much because we are the Clinical Center. While we can see these patients as outpatients when they come back and visit, right now we're really doing kind of the acute inpatient stay work, and then at that point, it's kind of up to the primary team what they want—whether they want them to follow up as an outpatient or maybe seek other services in their community upon discharge.

Barr: Are you seeing different types of lingering effects as the virus has changed, but also as the medical approach to dealing with it has also changed?

Turner: One of the primary lingering effects that patients experience after COVID-19 when they get it to the level that they're in our inpatient setting, because there are obviously the spectrum of symptoms that people get with COVID 19, but if it brings them to the point that they're in an inpatient setting, oftentimes either in the ICU or requiring mechanical ventilators and things like that, oftentimes with those patients we're seeing a lot of scar tissue develop in the lungs, which can result in kind of a long-term decrease in their ability to do that oxygen exchange in their lungs, which will ultimately decrease their activity tolerance, decrease their endurance, and make them just less able to complete their daily activities and routines.

Barr: What are some of the techniques that you use to facilitate the rehabilitation of these patients, and can you speak about some of your methods for tackling some of the common scenarios that you've been seeing?

Turner: With these patients, like I had mentioned, we're working a lot on breathing techniques, a lot on endurance, and trying to break their tasks down smaller. Initially what we would do is we would work on some diaphragmatic breathing, which is essentially trying to get them to really activate their diaphragm. Breathing positioning is huge because when we're in bed, we tend to lay there with our shoulders kind of brought in, which limits how much we can expand our chest when we breathe. If you're not able to open your chest with your posture, you're automatically limiting how much breath you can take in. With this patient population, any limit to their breathing capacity can make or break quite a bit so we would work a lot on positioning and opening their chest and posture—ways of teaching them about deep breathing. Every patient that comes into hospitals these days is—I'm pretty sure across the board, even in public hospitals—given an incentive spirometer, which is a device that measures your inhalation of breath, so how much you breathe in. We would work with this to try and encourage them. I believe later we'll talk about some exercises to do, but this is a major one because we want them to really practice breathing in and kind of forcing their lungs to open to their maximum capacity to take in the oxygen. To your earlier question about what OT does, we do focus a lot on mental health and a lot on getting people back to their daily activities, but we also have a hand in a lot of other therapies in a physical domain, in their recreational hobbies, and even in the respiratory domain with patients like this.

Barr: That's very interesting. At what frequency do you work with patients as well as how long? I know that probably varies by the patient and their condition, but you would work with a patient every single day?

Turner: Typically, when patients are acutely ill, I would say our typical frequency for those people would be about four to five times a week. As an occupational therapy discipline, we are here only Monday through Friday so that is almost every day during our work week. There may be one day where something may be going on, and we just kind of rotate; say physical therapy sees them that day but not occupational therapy and then that happens one more time during the week. So that staggers it, but I'd say they're pretty high frequency, four to five times a week, and their typical sessions in the room with them can last anywhere from as short as 30 minutes to as long as an hour or more. It really depends, like you've alluded to, what the patients can tolerate because patients who are very acutely ill may be still ventilator-dependent. That's going to limit what activities we can do versus a patient who is off ventilation who is able to walk and talk and mobilize a little bit more. Those patients we might take a little bit longer with and part of that is going to be measuring out your rest breaks too because they'll definitely be needing some of that.

Barr: Do you work with patients for several months, like the same patient?

Turner: We've had some patients who—the unfortunate portion of COVID is that there is an ebb and flow to recovery. It's not linear. A lot of people start getting better, and then we'll have an acute crisis episode, which will result in kind of a backsliding of their progress medically and rehabilitation-wise. I had a nice lady that I worked with for probably four to five months, an inpatient here who would be

getting very close to discharge and then all of a sudden would have a relapse of symptoms so severe that oftentimes once or twice with her relapses, she had to end up back on mechanical ventilation. That's not every patient, some patients do have a linear progression of sick to better, but [for] a lot of these patients some of the symptomatology is that as they progress to better, sometimes they do have those backslides. I'd say the bulk of my patients [I see] probably three weeks to a month. Obviously, there is a duration of time where they need them to be COVID-19 negative before they can send them out, and it is a virus, so it takes a while. I believe, I could be mistaken, but I believe it's about two weeks' worth of nasal swabs or saliva tests of negative presentation to COVID before they're safe to the community again. At minimum, most patients coming in here with COVID would be here for somewhere around a month.

Barr: Do you send the patients home with certain exercises to do?

Turner: A lot of times when we think of exercises, we think in the physical therapy avenue of things like lifting weights or doing squats, lifting your legs. A lot of times with these patients the exercises that they would get from occupational therapy would be breathing exercises and techniques because it is primarily the lungs that are being impacted by this disease so giving them homework to work on increasing their volume of breath in is really important to increase their activity tolerance as a whole.

Barr: You were talking a little bit [about] some of those exercises or how the patients need this posture a certain way. Can you break down what some of those exercises may look like?

Turner For some of these breathing activities, you would want someone to position themselves for success, so it would be not laying in bed. You'd want them maybe doing a long sit, which is essentially if you were to lay in bed and just sit up with your legs outstretched. That's called a long sit so you could [exercise] in a long sit even if they're acutely ill and they still are lying supine in bed. You can have them bring their back off the bed to sit up a little bit. Just changing position will automatically open their chest up. Sitting [on the] edge of the bed or in a nice chair is a good position to do a little bit of trunk rotation. Your ribs often will get really tight from laying in bed for so long so being able to mobilize some of those muscles and get the bones and cartilage moving so that it can now expand easier and then trying to bring your scapula, your shoulder blades back, which automatically will roll your shoulders back and open your chest, it kind of brings your chest forward. Let's say you're huddled up in bed and try and take a deep breath. I might be able to take a full breath to about 70 percent of my capacity. But if I'm sitting up, and I stretch back, I'm open, loose. I take a deep breath. I can suddenly reach 100 percent capacity. For someone who's compromised and is having difficulty bringing in oxygen anyways, that difference of 20 to 30 percent volume of air being brought in can make all the difference in how they're able to continue their activities or get through the day.

Barr: Do they do them at particular times of the day? Do you prefer morning and evening, or it doesn't really matter when they do these exercises?

Turner: With the exercises, it's good to do continuous throughout the day. The incentive spirometer that I talked about is something that in a glorious world, doctors would say they want them doing every 15

minutes or every half hour doing multiple trials of it, but in reality, that can be pretty taxing for a patient. So [we] cue them at least if you can try every hour to using some spirometer and change your posture in your position in bed, if you're able to and try and do some of that deep breathing, especially in the hospital. I'd probably be encouraging my patients every hour to give it a try—multiple repetitions, not just sit up and then be done with it but give it a “I will try for a little longer.”

Barr: How do you motivate some of your patients who are just feeling overwhelmed or just kind of negative that they're not making the progress that they wish they were making?

Turner: That's a good question. The good thing about being at the NIH is that a lot of the patients—well, I believe we may have had a brief moment where we were helping the community by bringing in non-protocol patients to help here—but on the whole, the patients that are here are protocol patients who want to get better, who are here for other illnesses so they're very recovery-focused. I think that's probably the biggest thing for anyone is to try and change some of their mentality from the “woe is me” and “how far I've fallen” to more of a recovery [mindset]. I think the biggest thing that I do is I really measure my patients' success on a session-by-session basis. I'll tell them, “Ms. [name], last session you could barely tolerate sitting at the edge of the bed, and now we've gotten over to a chair, and you're doing these breathing exercises. I mean just in a day or two, you were able to go from barely being able to sit up to now being able to get out of the bed a little bit,” and just measuring things because when you look at things in a granular second by second basis as a patient, you tend to only see the individual trees instead of the forest, to use that analogy.

Barr: That's very interesting. Do you ever conduct sessions by telemedicine, and if so, what has that been like?

Turner: Unfortunately, I am still in a contractor-based position. Hopefully that'll be changing soon, but as a contractor I do not have the privilege to do telehealth. I do know some of my other colleagues do telehealth visits, but I unfortunately can't speak to that personally.

Barr: How do you balance caring for COVID patients with some of your other caseloads?

Turner: The biggest challenge with that is the putting on and taking off of all of the protective equipment because we do go in, and the beekeeper headgear and everything, putting that on, taking that off can be pretty time consuming. I try to put my patients that are COVID-based usually in the afternoon. I try and see my non-COVID patients first thing in the morning, and then usually like one, two, three o'clock, I try to keep open. I usually had two to three COVID patients when things were really active on my list so I would just cohort them together to be seen, keep it in the afternoon so I have more time and I don't feel pressured to have to run out and come back in later, which would waste the protective equipment and take a lot more time.

Barr: Last spring [2020] were you working with patients who didn't have COVID? I know that they shut down a lot of the other kind of surgeries and treatments that were going on.

Turner: They shut down a lot of the non-life-threatening [disease] protocols, so I was still getting patients who were non-COVID who were coming in for neural surgeries like glioblastomas [brain tumors] that they just tried to put off for as long as possible for safety's sake, but at a point, we got to do a resection to your brain mass or else it will be in an area that might be inoperable. There are patients who come in for the life-saving protocol treatment that we were still treating, but some of the elective stuff they definitely did shut down so my caseload did shrink quite a bit on the protocol side and did grow on the COVID side.

Barr: What do you think has been learned overall in the occupational therapy field about how to address patients with COVID-19?

Turner: That's a good question. I think overall as a discipline the focus on positioning and the focus on activity tolerance and breaking down larger activities into smaller, more manageable sections are something that have definitely grown in the cognition of OTS recently. I think it's always been a partner practice, but it's something that is very specific to this population that they really need. When I say break things down into smaller portions, it's like if you were to get up in the morning: you would go use the toilet, stand at the sink and wash your face, and brush your teeth, and then you would go get your clothes on, and then you go downstairs and have a cup of coffee, right. Well doing all that with severely limited endurance would be incredibly challenging. Doing something more like getting up and using the bathroom but sitting there for a little extra time, allowing yourself time to recover, maybe bringing a high stool or a higher surface chair in front of the sink and having it stay there so that after the toilet you can come over and sit at the sink, which takes less energy, do what you need to do, wait till you feel recovered and then just continue on with your day in that respect. So having those little breaks, cueing people to set those up because we're all very used to going about our routines as usual and then when something like this hits and especially the long-term lingering effects of it, that's something that we really need to drive home with these patients.

Barr: It's really interesting. I just wouldn't think that all those little things take so much energy, but I guess they do if you're severely ill. Another one of my questions is: were you ever concerned for your own safety considering the hands-on nature of your job?

Turner: When this all started, my son was only a little over a year old, and my wife became pregnant with our second child shortly after this started, so with having a pregnant wife at home and a son who was very young, I was less concerned overall about my health. I volunteered as one of the few OTS to actually take care of these patients, but I'm not particularly worried about my health level. I've always been pretty healthy and resistant to illness although this is obviously novel, but it was more the threat of bringing something home to my family. That was definitely a huge concern.

Barr: What are some personal challenges and opportunities that COVID has presented for you?

Turner: So personal challenges are definitely some of the anxieties that come with treating such a novel and infectious disease and then having to go home and see your family. Everyone is, was I guess now, quarantining, really just staying in their family units. With so little having been known about it, right, it's like does it stay on surfaces? If it does live on surfaces, what surfaces need the most cleaning? What's its

overall lifespan, right? So it would be on my scrub pants or my shirt. Obviously, I don't go home and hug my kids in my work clothes, but at the same time, being in the hamper and putting them in the wash, you're still handling them. You're trying to remember to wash but at the same time it's just always thinking about where you've sat, what you've touched, and just trying to be mindful of that so that you hopefully don't bring anything out of that [hospital] unit to anyone else, not just family but co-workers or the unsuspecting public.

Barr: Yeah. I had a question. Were you, as a field, surprised about the effects of COVID-19? Does the flu sometimes or certain other respiratory diseases incapacitate patients as much as COVID-19 has?

Turner: I think that the flu is a very interesting bug because it has so many variations that it can present in a lot of different ways. At least with COVID, the way it was presenting was relatively uniform in patients, and it was pretty severe so the patients that would develop symptoms to the point where they had to come into the hospital, these would be the patients that would have some severe deficits to their lungs. They might be developing something like pneumonia. I think the biggest surprise was the scar tissue that could linger in some of these patients, which raises concern for future mutations or various strains that may have more of that effect because, while I'm not a pulmonologist so I can't say for certain that those are chronic lifelong deficits that those patients will have, I imagine they probably will have some recovery, but their endurance may never fully be back to what it was, so that portion is surprising.

Barr: That is surprising. What is something that you enjoy that has made the pandemic more manageable?

Turner: While it almost seems like it was a bad time to have the birth of my daughter it was actually...

Barr: Congratulations!

Turner: Thank you. Because my wife was on maternity, I took a little time but then would work and still come home and have my son whom we're keeping home from daycare, my newborn daughter, and my wife. While it's hard not seeing family, friends, or doing fun things, that was probably one thing that was pretty nice—getting more family time.

Barr: That's great. This is a fun question. What has been one case that has really stood out for you and why?

Turner: I definitely think it would be the lady that I alluded to earlier, and I think that she stands out to me the most because she quite literally... we were planning for her discharge and getting all of our proverbial ducks in a row to get her out probably about three times, and she would just constantly keep relapsing with multiple symptoms that would require a lot of intervention and essentially delay her discharge home. I believe when she was testing COVID negative, they ended up doing an exam of her bronchial airways, and they were able to detect COVID still in her deep lungs, and that was pretty surprising because a lot of times we assume negative is negative, positive is positive, but she was

someone who was presenting with negative tests but then after doing a more invasive exam, they were able to actually still detect it. So she was interesting for a lot of ways.

Barr: That's very interesting. Well, thank you very much for all that you do for patients at NIH, and I wish you and your family continued safety.

Turner: Thank you so much. It's been a pleasure speaking with you, and we're always here if anyone needs us.

Barr: That's a good thing.