



Optimising patient outcomes beyond the clinic

A team of Gold Coast health professionals turned entrepreneurs is taking health care 'Beyond the Clinic' walls to optimise patient outcomes. Using digital technology and AI, the team has created an app that is revolutionising healthcare by allowing clinicians to engage with patients in between appointments while helping to drive time efficiency in medical practices. Find out more in the latest episode of Health Tech Talks with registered nurse and co-founder of Beyond the Clinic, Ali Stokes.

Host - Rebecca Griffin:

This is a podcast by Lumina, the perfect space to innovate, collaborate, and grow in health, science, and tech. Ali Stokes, welcome to HealthTech Talks.

Guest - Ali Stokes:

Thanks, Rebecca. Thanks for having me.

Host - Rebecca Griffin:

Ali, you're a registered nurse with many years of clinical experience and you're now using that experience as an entrepreneur to make the healthcare experience better for patients and clinicians. Your latest venture is as co-founder of Beyond The Clinic. It's a pleasure to be talking with you today, Ali, as the second interview in our three-part series on business and client relationship automation. Let's start with Beyond The Clinic, which is such a clever name. Can you explain what it is and how the idea came to fruition?

Guest - Ali Stokes:

Beyond The Clinic is a virtual clinic that supports patients with joint and muscle pain. How it came about was my co-founder and I were working together in a busy orthopedic practice here on the Gold Coast. And I was watching the way he would deliver patient care and he would see 40 patients a day. And these patients are often having life-changing events, so a knee replacement, or a hip replacement, and he'd only have 15 minutes to spend with these patients. And so he would send them off with some photocopied instructions and the next time he would see them would be on the operating table. These patients are often feeling quite overwhelmed, they're having a significant life-changing event. And we started thinking, really we're just sending them home with these photocopied instructions, how can we better deliver patient care? And that's when we went about building Beyond The Clinic to deliver a virtual clinic to serve patients better.

Host - Rebecca Griffin:

So it sees them not just post-surgery, it's also before surgery?

Guest - Ali Stokes:

Correct.



Host - Rebecca Griffin:

Oh, so pre-and post.

Guest - Ali Stokes:

That's right. So what's the pre-surgery about?

So optimizing patients before surgery, it's well known that they'll generally have better outcomes. So both in discharge, length of stay, staying in hospital for longer. Also, if we can take the time to really strengthen conditioned muscles, patients will have less risk of readmission and overall just recover better.

Host - Rebecca Griffin:

Your website says, "Human-led, tech-enabled." What does that mean?

Guest - Ali Stokes:

One of the biggest problems that we face in healthcare is that we have a supply and demand issue. We have more demand on healthcare than we can supply clinicians. So we thought how do we use technology to do some of the heavy lifting but still provide that high-quality human touch? And that's the way Beyond The Clinic came about. So we use technology to do some of the heavy lifting, do that automation of interaction, really empower patients with education. They want to ask the questions, they can ask the questions through the technology platform. And then we use humans, health coaches to really drive accountability, reassure, reinforce behavior change, and really support patients from a human touch perspective.

Host - Rebecca Griffin:

I understand that Beyond The Clinic is the first digital platform designed by healthcare professionals. How is it revolutionizing healthcare to achieve better outcomes for patients and providers?

Guest - Ali Stokes:

Yeah, so Beyond The Clinic really serves as an extension of clinicians. So as I said, my co-founder had 40 patients to see in a day, 15 minutes simply is not often enough time to really answer those questions and make patients feel empowered and confident with their care. So the way we're revolutionizing healthcare is that we're really enabling patients to self-manage their care with information and instruction that it's important to them. So they will have all the information, the right information at the right time, and they're able to access that when they need it.

Host - Rebecca Griffin:

Give me an example, if you can. So I'm coming to have a knee replacement. I've had my appointment with the doctor. I go home, my surgery is in a few weeks time. How can I use the platform?

Guest - Ali Stokes:



So the doctor will prescribe you on the platform. So they'll say, "Rebecca, I'm signing you up to this platform." You will then get a link and then you'll start on the platform. We'll first get a baseline set of observation, and these are commonly known as PROMs, patient-reported outcome measures. We want to get a baseline of exactly where you are before your surgery. Our goal beforehand is to really optimize you. So we want to see a change in your PROM scores prior to the operation. We want to see that you have improved your mobility, your confidence, your understanding about the procedure. And then we want to be able to report on that back to the doctor. So we will let the doctor know, say, "Rebecca is in great shape, we've been able to manage to move her scores in a positive direction." And then postoperatively do something similar. So we would be providing you the bespoke information and instructions from that surgeon on when and what to do at the right times of that protocols of care.

Host - Rebecca Griffin:

So the patient can go on the platform and ask questions?

Guest - Ali Stokes:

Mm-hmm.

Host - Rebecca Griffin:

And then there's also other education, therefore them specific for their particular procedure and-

Guest - Ali Stokes:

That's right. That's right. And then similarly then we'll have checkpoints where they'll check in with the health coach. We can also then start flagging if there's a deterioration of care, can start saying, "Okay, Rebecca is disengaged. We really understand why you disengaged. Okay, we understand that you're in pain. Okay, let's address the pain matter so that you can keep exercising and keep adhering to your protocol."

Host - Rebecca Griffin:

So automation in healthcare business is critical. Can you tell me the benefits of this app?

Guest - Ali Stokes:

Yeah, so often in healthcare we don't understand, we don't get any visibility of a patient's journey beyond the clinical walls, hence the name Beyond The Clinic. And so what we want to do is create visibility so that we can predict preemptive care. So we can start flagging and seeing there's a deterioration or a deviation of care before we get to a catastrophic event where you are readmitted to hospital with a stiff knee or there is an infection. Yeah, I think preemptive healthcare is really probably the most valuable feature is that we get through automation, through consistent prompting of the patients to enter data points into the program. We get to start to see and have visibility of your progress beyond our face-to-face appointments.



Host - Rebecca Griffin:

What features are doctors liking most about it, Ali?

Guest - Ali Stokes:

Doctors are so time-poor. Our goal for the clinicians or the value proposition that we offer clinicians is to drive time efficiency in their practice. So it needs to be time-neutral for clinicians. The way we are able to gather data from a patient and their reported measures as well as subjective data on range of motion and vital signs can then generate a report for the clinician to be able to have a snapshot of that patient. And then really start to say, "Do I really need to see this patient post-operatively, or I can just have a tally health meeting with them?"

Host - Rebecca Griffin:

At the end of the day, it's really about optimizing patient outcomes and preventing readmission.

Guest - Ali Stokes:

Correct.

Host - Rebecca Griffin:

So I saw a lot of great reviews on the app from patients and one patient, Lewis said he loved the at-home appointments. Can you tell me more about the results that you are seeing for patients?

Guest - Ali Stokes:

Yeah, so obviously Australia is an enormous country and we have many patients in rural and remote Australia. And so often these patients have to take an entire day off work or it's a two-hour commute to get to their surgeons. So having the convenience of having a program or having a virtual health coach in their hands, they can really feel confident with their care. They can understand that they are on the right track with their recovery and they don't need to take that completely inconvenienced drive, wait for two hours in a doctor's operating room, struggle to find parking, and they can just have that convenience model of care.

Host - Rebecca Griffin:

So, Ali, we've focused on the surgical program. Do you offer any other programs to patients?

Guest - Ali Stokes:

Yeah, sure. So we are looking to support patients with all musculoskeletal conditions. And one of the other programs that we have in market is a conservative management program for patients who have been diagnosed with early stage osteoarthritis. And the problem that we face with these patients is that they often have got early signs of arthritis, they are struggling with joint pain but not quite ready for surgery. But they really need support and they get lost through the cracks and consequently end up having a joint replacement maybe a little bit earlier than they needed to.



So this program intervenes early. It's a twelve-month program and basically it really supports patients to learn more about the disease, strengthen condition, help them be accountable to moving more, and guiding them with their education around their diet, and losing weight, and just healthy lifestyle. But then we keep the GP and the surgeon up to date with the program, so that they can keep tracking and monitoring those patient's progress. So we've been quite fortunate to see that a lot of patients that have been on the trajectory to have a joint replacement have actually declined joint replacement surgery because they feel so great after the program.

Host - Rebecca Griffin:

That's a brilliant outcome. You're listening to HealthTech Talks, a podcast series delivered by Lumina. To find out more about Lumina, visit the website luminagoldcoast.com.au. And sign up today to receive your Lumina opportunities pack. Ali, what's your favorite feature to automate?

Guest - Ali Stokes:

My favorite feature to automate would be just around the micro-assessments of patients. We'll constantly be asking you questions, how is your pain? Did you feel confident? Do you understand what a knee flare-up is? I think the constant gathering of information really can build a digital profile on a patient, so that we can understand what motivates you and what makes you tick so that we can really drive and support behavioral change to get better outcomes for you.

Host - Rebecca Griffin:

So I'm guessing once you built the platform, it's the kind of thing that keeps evolving and changing, the more data you get and the more experience and longevity with the program. Would that be right?

Guest - Ali Stokes:

Of course. And of course, and also with the rapid evolution of technology, there's a lot of exciting things around generative AI that of course we want to implement and use when the time is right.

Host - Rebecca Griffin:

Would you say that since the COVID pandemic, people want more instant service from their doctors? And how is the app filling that gap?

Guest - Ali Stokes:

Yeah, since COVID, I think that healthcare is becoming more of a consumer product and people are less likely to just take face value. And so I think they are often looking for alternatives. They are more informed, they're more educated, and they really actually want something out of their healthcare service. So unlike retail, you buy a pair of jeans and you get asked, "How was your feedback? Did you enjoy this? Is a good fit?" In healthcare, we've never done any of that. And it's just you get what you get and you don't get upset. I think this paradigm shift is really changing. I think COVID was that when we were forced to use digital healthcare. And for us as a digital health company, it was really the silver



lining. And I think we will see this space grow enormously. People are demanding this, people are demanding more out of healthcare and rightly so.

Host - Rebecca Griffin:

Now, looking ahead Ali, where do you see Beyond The Clinic going in the coming years?

Guest - Ali Stokes:

The value that I see Beyond The Clinic offers is accessibility and affordability. And so I would really like to see the adoption curve grow for digital health and the way people consume it. And really I'd love to see the shift in population health, that we see healthier patients accountable for their own health and they've got the right tools to help them. So it's more about shifting healthcare, having patients at the center of healthcare as opposed to delivering it. And like I said, set and forget kind of healthcare. And I think as far as sustainability for economics, health economics, I see that there's a huge opportunity for us to be wiser with our money. With the way we use money in healthcare, there's a huge amount of wastage that is spent with delivering care that's not value-based. The use of technology really enables us to understand the value of what Rebecca wants out of healthcare and what Luke wants out of his healthcare. So we're able to gain more information about somebody to see what's really important to them.

Host - Rebecca Griffin:

I love the idea of your app, and do you think it could go across other specialties?

Guest - Ali Stokes:

Absolutely. Given that we're such an early stage company, we've had to double down and really focus on our domain expertise, which is musculoskeletal. However, you can see this technology going across multiple medical specialties. You can see it in cardiology, I can see it in obstetrics, any kind of intervention, or chronic disease management. You can see how this technology would be applied, but at the moment we're doubled down on MSK.

Host - Rebecca Griffin:

Now, that is your background as a surgical nurse. So you've gone from nursing to now a business person. How was that experience for you?

Guest - Ali Stokes:

Yeah, I mean I think it was an evolution really. I come from a family of small business owners, so I think I always had entrepreneurial blood in my veins. Mum said I had to go to university, so I looked for what was the quickest degree that I get, which was nursing. But what that did enable me was to get into an amazing industry, which I love because everyone's got health, so it's pertinent to everybody. And then I did 10 years working for Johnson & Johnson Medical, which really allowed me to connect the clinical and commercial dots. And so when the time was right when I thought, "Okay, this is time for me to start solving some of the big problems that we face in healthcare."



Host - Rebecca Griffin:

And then you also participated in the LuminaX HealthTech Accelerator program in 2021. And for those who aren't familiar with the program, it's a leading Australian accelerator designed to commercialize early-stage startups in the health tech industry. What impact did the program have on your business?

Guest - Ali Stokes:

LuminaX was fantastic and I love the team. I love the philosophy of LuminaX. I'll be forever an advocate for them. What LuminaX gave us as a really weird ideation with our business was a bit of a road map. We quickly realized how narrow our skill set was and that while we're really good clinicians, it's one piece of the puzzle and you need to be able to acknowledge and co-design with all the pieces of the puzzle if you're going to actually make it. LuminaX gave us really great insight into the multi-facets of healthcare as well as a road map as to how you actually get your idea to a business.

Host - Rebecca Griffin:

So where is your business at now?

Guest - Ali Stokes:

Right now we have two products in market. So the Conservative Management program and the Surgical Optimization Rehabilitation program for joint replacement primarily. We have built an amazing team. Don't ever underestimate how hard it is to build a good quality team. That's taken us quite a few years to really do that. We're in early stage of beta testing our two products. Our primary goal this year is to get product market fit ready for commercialization, hopefully next year.

Host - Rebecca Griffin:

So what will be your patient age range, is it predominantly elderly people and then how will they go using the app?

Guest - Ali Stokes:

It is predominantly elderly people. So our average age is about 68. We have had to spend a lot of time on user experience and user design. Obviously that population, it's a varying spectrum of digital literacy. So we have a couple of guiding rules. If you can receive and send a text message, you can use our app. If you can take a photo and send it to your daughter or your grandkids, you can use our app. We've really spent a lot of time on making sure it's really intuitive, that they feel really supported, that there's big buttons that they can push, it's so self-explanatory. And then lots of automation in the background.

Host - Rebecca Griffin:

I guess you also have to spend a lot of time marketing because if doctors, surgeons don't know about it, then they can't prescribe it to patients. Is that correct?



Guest - Ali Stokes:

Yeah, I think that is the complexity of any healthcare. The end user, which is the patient is not the prescriber who's the doctor, who's not the payer, who's often the health insurer or the government. So we've actually got a three-sided marketplace that we have to promote to. We need to first secure how the money flows and really secure how the payments work. And I think we've got a huge amount of work to do that with government, with lobbying for remote patient monitoring codes and rebate codes. Obviously, driving adoption, clinical adoption, so really articulating our value proposition for clinicians and what's in it for them, which is time efficiency. And essentially they can monitor their patients beyond the clinic walls. And then patients, what's in it for them? So I think it is a complex stakeholder management.

Host - Rebecca Griffin:

What advice would you have for other business owners looking for support and advice in a business venture?

Guest - Ali Stokes:

A couple of things. I think the first one would be don't build. We made a lot of rookie mistakes when we started out. So we built an enormous piece of tech and then consequently through that in the bin, which was a lot of time, money, and hard-earned expense. So don't build on an assumption, build on insights. So make sure that you've really found a customer, you've co-designed, you've considered the complex stakeholders and you've really created value propositions for each of them. Secondly, I would say recognize that your skill sets narrow. Great, you're a great clinician, doesn't mean you're a great business person. Great, you're a great business person, clinical is very complex. So get a clinician on your board at least, and build your network. You need to invest in networking, you need to invest in understanding the market that you're trying to solve a problem in.

Host - Rebecca Griffin:

And you said there that you built something and then you had to start again. How did you build up your motivation from having to basically start again?

Guest - Ali Stokes:

Like I said, I think that was really just a rookie mistake. So I think we built it on what we thought was the right thing. We still had enough market pools, so we had customers interested in what we were doing. We had people believing in us, we had people giving us money, so we had to go back to the drawing board. I kind of use the analogy, I built the Taj Mahal when the market just really needed a tent.

Host - Rebecca Griffin:

Got it.

HealthTech Talks Podcast Series



Guest - Ali Stokes:

You know, they just needed something small and easy, so we just automated one little bit. You need to just do small incremental design changes instead of trying to build this bells-and-whistles kind of platform and test, validate, iterate, test, validate, iterate all the time. I think that's critical.

Host - Rebecca Griffin:

Thank you so much for talking with us and all the very best with Beyond The Clinic.

Guest - Ali Stokes:

Thanks, Rebecca.

Host - Rebecca Griffin:

In our third and final episode of our three-part AI series on business and client relationship automation, we'll be talking with Dr. Padma Gadiyar from Smilo.ai. To learn more about Lumina and how we work with health tech startups, visit luminagoldcoast.com.au. And don't forget to sign up to receive your Lumina opportunities pack today.