

## Improving lives with better health monitoring

### Daniel Lai's PhD journey



Daniel is a PhD candidate in his final year at Canterbury Christ Church University (CCCU), jointly funded by ARC KSS. His research, the *Using e-Health for Early Detection of Post-ICU Syndrome (ePICs)* project, explores the feasibility of an eHealth remote patient monitoring system designed to track Post Intensive Care Syndrome outcomes in the early post-discharge phase. With a strong foundation in mental health and digital health research, Daniel's journey has been marked by resilience, intellectual curiosity, and a commitment to translational impact. His work has already led to a first-author publication and meaningful engagement with study participants, reflecting his passion for using research to drive meaningful change in clinical practice.

#### Tell us about your research project

The ePICs project is a feasibility trial looking at an eHealth remote patient monitoring system that aims to track Post Intensive Care Syndrome outcomes (Physical, Psychological, Cognitive) during the early post-hospital discharge phase (the first 3 months of the hospital discharge). The system aims to provide data insights for clinicians to plan patient rehabilitation or signpost patients to the required care (i.e. patient scores in cognition test may warrant more in-depth assessment, or low reported mood scores may require clinicians to follow up with the patient). The main aim of this study evaluates the feasibility and acceptability of the monitoring system. The secondary aims explore the recovery trajectories of PICS outcomes among critical care survivors.

#### What inspired you to undertake a PhD? How long will it take you to complete? And, how did you fund your studies?

My interest for research was cultivated during the research methods modules across my undergraduate studies at Bangor. I would say my passion for research, especially within mental health, and digital health, sparked during my research assistant role at the Centre for Mental Health and Society, and my MSc at King's College London.

What inspired me to undertake a PhD is the inherent desire to pursue knowledge and using that to instil meaningful change. I would say all my experiences prior to the PhD has shown me how research can provide new insight to inform change; whether new paradigms should be adopted in chronotype research or if a longstanding model of care needs to be updated with new emerging evidence.

The conceptual precision and concern for a model's validity is desired to ensure accurate evidence is translated into clinical practice. I think my experiences carrying out my PhD project has shown me a more direct aspect of change that translational research offers. Evaluating how usable and the perceived effectiveness participants found my remote patient monitoring system has provided a more poignant experience of my research's impact. Knowing something that was just an idea, formalised into a protocol, and implemented with evidence suggesting its usefulness among the target population is what keeps me motivated within this field of research. This coupled with the impactful work from my colleagues across health research consistently keeps me inspired.

I'm in my third and final year of my PhD and am in the process of writing up my thesis. I would not have been able to conduct my research without the support of the ARC KSS and Canterbury Christ Church University who jointly funds my PhD studentship.

### **How would you describe your journey so far as a PhD student? The highs? The challenges?**

Non-linear. Though I do acknowledge that the PhD journey is very variable in experience, there are some overlaps in the general PhD journey. I think I speak for all PhD students when I say that the journey is long, arduous, and at times painful. I believe that a PhD without a setback or delay is not a PhD experience at all. It doesn't help that a great proportion of PhD students face imposter syndrome throughout their journey. I for one, struggled with that in my first 2 years as there were many obstacles impeding me from conducting my project. I couldn't help but blame myself for circumstances that were out of my control. I think publications, award-winning posters, and well-received conference presentations do not reflect these internal battles faced in a PhD. Other initial challenges include getting used to a very independent way of working, a very specific form of isolation due to the specificity of your project and navigating the bureaucracy that comes with conducting research which was especially the case due to the nature of my project.

That doesn't mean that the journey is all doom and gloom. The journey can also be fun, fulfilling, intellectually stimulating, and meaningful. I have been fortunate to meet good friends and have a supportive supervisory team. These have been integral in sustaining me through the PhD journey and I do not take it for granted. My supervisory team has guided me through the different obstacles and taught me that though I cannot change certain circumstances, how I react to it and what back up plans I have will increase my probability of success. Sometimes these ideas pop up when I am having informal conversations with the friends around me. Something I really enjoy is bouncing off whacky research ideas with friends. As I mentioned in the earlier section, observing how my research positively impacts participants really motivates me to continue to conduct research. As someone who is approaching the end of his PhD (though super stressed as I frantically try to finish writing my thesis) and seeing a faint light at the end of the tunnel, it's funny how things I've worried about finds its own way of working itself out. Again, that is what I find in my experience of the PhD journey.

## What are the highlights of your PhD project?

**My first publication as the first author:** It gave me some confidence that the research I have done is valuable and insightful to the wider scientific community.

**Giving my first lecture at CCCU:** Though not directly linked to my project, teaching is a big part of your PhD training. I was honoured to have had the opportunity to lecture in CCCU. It felt like a full circle moment knowing that I was once in those seats as a student. I also valued the trust my supervisors and module leads had in me to deliver a high-quality lecture to the students.

**Building rapport with the participants:** As my project is longitudinal in nature, I had to follow up with participants across the 3-month period they engaged with the remote monitoring system. I enjoy addressing any questions participants had and interacting with them throughout the study.

**Interviewing my participants after they completed the study:** Participant interviews signified that the participant has completed 3 months of monitoring. I think hearing the different experiences the participants had with the monitoring system really reminded me why I chose to pursue research. What participants got out of the system was varied, but for participants that found it useful and describe how it positively impacted their recovery is really encouraging.

## What advice / tips would you give someone thinking about undertaking taking a PhD?

Don't do a PhD for the sake of doing one. Ask "Why do I need a PhD?". You should take the opportunity to explore if you have an interest in research. Though a strong support system can facilitate a success in a PhD, I would say the main factor driving your motivation to complete a PhD is that intrinsic passion for research and pursuit of knowledge. Though this interest may wax and wane throughout the journey, it is that passion that sustains you during the adversities that you face during your PhD. Perhaps exploring these factors can be a research study in itself.

It is completely normal to feel lost and feel like you don't know what you're doing. The transition into a PhD is quite drastic for many and often you feel like you have no idea what you are doing (it's the imposter syndrome). I think it is because you must start being specific about what you want to do for your project, and the infinite permutation of research designs you can propose can be overwhelming. It doesn't help that your supervisors may have big ideas and suggest additional measures/variables that can be explored. I would say embrace being lost and be open minded with what your supervisors have to say. You are a PhD student after all. Exploring the range of methodologies to meet your research aims is part of your learning journey to become an independent researcher. Managing and keeping motivated with this more independent work schedule are all part of the learning process of the PhD.

The two main things that the PhD have taught me is 1) be adaptable to change 2) if you don't try you don't know. Resilience and grit are built during the course of your PhD.

Be adaptable to change. Always have a plan B and even a plan C. Things may not always go your way throughout your PhD. Some unexpected obstacles may require you to work around them or even change how you approach certain situations. Having contingency and back up plans enable you to feel more at ease in the event something goes wrong (which from experience, it probably will).

If you don't try you don't know. This sentiment stems from the attitudes my supervisors hold when approaching grants, publications, and collaborations. This doesn't mean you don't make calculated decisions or submit low quality work. I think it is having the mindset that the worst thing that happens is that they say no and that is alright. It is still frustrating when rejection happens, but the important thing is how you appraise the situation. I recommend sitting with the rejection for a bit, address the feedback (if any), and on to the next opportunity. This mentality can be generalisable into other jobs and careers even after the PhD.

### **What's next? What are your plans for the future?**

As of now, I am still in the process of writing my PhD thesis. My current plans after that is to look for research roles within academia. The future is a big question mark for now. Amidst all the uncertainty, I'm hopeful.