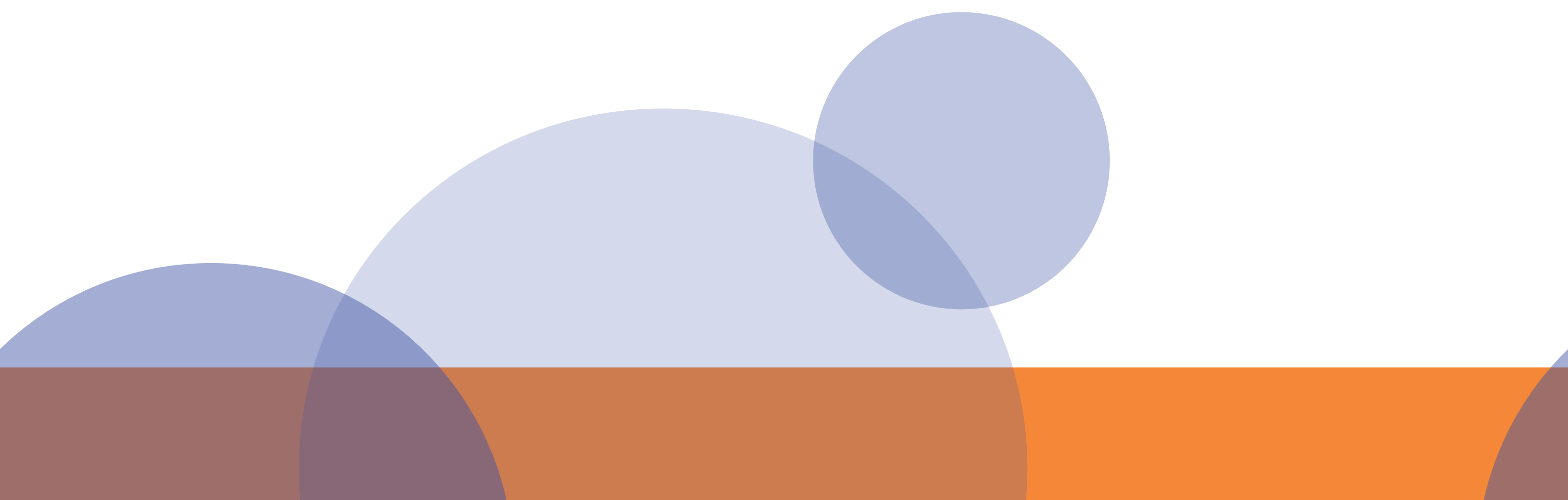
Participant discussions from *Evidence Based E-therapy and Face-to-Face Therapy for the Treatment for Anxiety Disorders Across the Lifespan*

Hosted by
the **Centre for Emotional Health, Macquarie University**

Sydney, 27-28 February 2017



This article includes the discussions and presentations of participants in this event but does not necessarily reflect the views or policies of the Mental Health Commission of NSW.

The Brave New World of E-Mental Health

By Karen Pakula

The world according to Sarah was so full of danger she'd be in knots at the thought of sausages for dinner. Choking was a tremendous fear. So, too, was being trapped in a fire or stuck in an elevator. Or dying in a plane crash. Or her parents dying in a plane crash. By the age of 10, Sarah was so riddled with anxieties that her mother, Becky, a high-school teacher, could see a train crash ahead. "I knew if I didn't get her some strategies now, the problems would only multiply when she went into adolescence".

For the sake of privacy, the family has asked that their real names not be disclosed. In little more than 12 months, Sarah's torments began to seep into every aspect of her life, including times that should have been fun. She lives in Far-North Queensland (yes, getting eaten by a crocodile was on the list) and "was so full of worries, if we were all going for a swim, we'd be the ones in the water and she'd be waiting for us on the beach."

What's a busy, switched-on 21st-century mother to do? Becky talked to her GP and downloaded some apps. Online stores are awash with friendly-looking packages for children. She found mood meters with Penguin faces, belly-breathing meditations and mindful hugs, a treasure chest to store Sarah's worries. And these took away some of the stress, especially at bedtime, "but then I released they weren't teaching her strategies to help her make plans in different situations and deal with things herself."

So. It was back to Google. Becky was clear about her needs: "I wanted something specific to a 10-year-old with anxiety, not generalised. Plus, I wanted it in our own home." Her search led to Macquarie University's Centre for Emotional Health (CEH), which was conducting a trial of an online version of its successful Cool Kids anxiety treatment program. Bingo. "My daughter had general anxieties that were affecting her life. If anything, it's taught her how to rationalise and how to have realistic thinking and create a plan and to problem-solve."

Welcome to the new frontier of e-mental health. It is an infinite space where anyone, anywhere, anytime will find the help they need. That mobile device glued to your hand will soon be able to read your pulse, remind you to breathe, ping an alert to your therapist and link you to a sympathetic stranger while you're

staring at the ceiling at 3am. And the virtual-reality goggles to work you through your spider phobia are on the way.

Underlying every bit of technology are solid therapy models, years in development. The focus of the IIMHL Exchange match at Macquarie University's Centre for Emotional Health (CEH) was how to disseminate quality, evidence-based programs in time to satisfy a desperately overloaded area of need. "The world doesn't know it yet but work in e-mental health and drug and alcohol is going to be critical to the next generation of Australians," says Professor Maree Teesson, director of the NHMRC Centre of Research Excellence in Mental Health and Substance Use (CREMS). This, she explains, is because the burden of mental and substance-abuse disorders, which already accounts for one in 10 lost years of health globally, is felt "unfairly and intensely amongst young people" between 10 and 35. "Cancer, cardiovascular health – they've got the runs on the board at the moment – but longer term, if we're going to really have a healthy society, then those of us who are experienced and knowledgeable about to deal with the issues around mental health and drug and alcohol are going to be critical."

New technology will be crucial to reducing the "excruciatingly long" gap between the peak onset of problems and treatment, Teesson says. "[In 2015], we mapped 10,000 Australians over their lifetime and examined when they sought treatment, any sort of treatment – this is going to the GP and saying, 'I've got a problem with my alcohol use'. So, most of these disorders start at about 19. And when you look at who is in treatment in Australia, they are about 38 to 40 years of age."

The demand is already here. After years of development, in 2016 the NHMRC launched Positive Choices, the online portal to its early-intervention Climate Schools program. It already has 38,000 users. A recruitment drive on Facebook of 18-25-year-olds for a study on alcohol use and depression garnered 800 hits in three weeks. Another, more interactive study focusing on drugs and depression attracted 3,500 volunteers. Teesson explained how this revealed an unexpected view into the mindset of people seeking help via technology. An initial request for an email address and telephone was removed after six months and interest in the project rose from 10 hits per month to as high as 80. Although the program had a closed social-networking platform monitored around the clock, focus group interviews got to the nub of the matter: "It is much easier to be honest through a screen"; "I'd be more likely to use it if you can remain anonymous"; and "I use computers a lot. My psychs are not available 24/7."

Match host Dr Lauren McLellan points to a crucial driver in demand for e-mental health solutions. "Over and above all, online delivery is particularly powerful for psychological interventions because there's such a huge stigma attached to mental health," she says. A CEH postdoctoral researcher, McLellan is working on

developing Cool Kids from face-to-face to an online program. The original Cool Kids program, for ages 7-17, is a cornerstone of the CEH's clinical work that stems from the centre's anxiety treatment for children in the early 2000s. The first generation of e-health programs were CD-ROMS, for adolescents as well as children, and modelled on the successful stepped-care approach to treatment. Cool Kids came online in 2015. It uses a CBT approach known as Stepladders, which gradually exposes children to feared situations, "so, firstly, they can learn the situation isn't as scary as they thought and, secondly, they see they can cope". The clear stages of CBT are well-suited to the online platform. "The program allows us to take all the best bits of what clinicians communicate in therapy all the time and wrap that up in a visually engaging set of skills and video bite-sizes that go straight into families' homes."

Researchers at the CEH – and at most universities across the country – have been nobly working through projects one grant at a time. Word-of-mouth is still an important recruiter. In Australia, dissemination of e-mental health care and products is left to umbrella organisations, such as E-Mental Health in Practice (eMHPrac), a training and education hub for health professionals, and the Black Dog Institute, whose website is a source of programs and apps resulting from copious research. Producing an evidence-based e-health program – be it an app or website or CD – is expensive and labour-intensive, starting with research and development and clinical trials to the promotion of the program. The costs are ongoing, due to the continuous updates required to be on top of developments in technology and current practice.

But technological advances are also a financial imperative. In Sydney for the IIMHL, Karim Mamdani, CEO of a Canada's Ontario Shores Centre for Mental Health Sciences, is well down the e-path. The 325-bed psychiatric hospital is entirely paperless. It runs a magazine-style website and social-networking platform as well as a sophisticated electronic portal that keeps patients in the loop with their medical team and monitors and refills medication. This innovation was born during hard times. Over the past decade, outpatient visits have tripled from 23,000 to 69,000. The waiting time for new patients to its PTSD clinic is 275 days. And, says Mamdani, the hospital has finally ended a four-year drought with "zero per cent" government funding which, when calculated with wage indexation and inflation, meant an annual reduction of about $Can2.5 million.

Mamdani says quality patient care is an equal driver for innovation, especially with the challenges distinct to mental health. "There has to be some sort of way to leverage what is good science. No-one in North America had ever created a portal to give access to their mental-health patients prior to us because of the fear of litigation, with people worried about the impact of their notes being visible. These were breakthrough events," he says.

The hospital's move to paperless three years ago paid dividends with the establishment of standardised care and new protocols. "Once we had the system in place, it allowed us to experiment," he says. "We had physicians' notes, nurses' notes, allied-health information all on the one document. It's all built-in, so we could go back and audit to make sure everyone was doing what we asked them to do." In the clinical setting, this meant "if the dosage was wrong, for example, or it was the wrong person, the system would prevent the medication being administered. When we looked back, we found 1500 errors a month were being avoided – so that was 1500 times a month that the system was preventing an error from occurring."

In January, Ontario Shores launched a pilot study of an interactive platform on hand-held devices for outpatients. This can be custom-fitted for people to record their anxiety or depression level, for example, and the information collected directly fed into their e-records, "so we can measure their wellbeing from the hospital and intervene before they have deteriorated too far." Also in the works is a randomised trial of a "Canadianised" CBT app developed by researchers for the US Veterans Affairs Administration, which will hopefully relieve the nearly year-long waiting list to the PTSD clinic.

The future success of e-mental health programs will also depend on striking a balance between responsible oversight and perceived intrusiveness. "I think that people will find access to virtual technologies and interactions just as fulfilling as physical ones. For a significant portion of the population; not everyone," Mamdani says.

Lauren McLellan from the CEH believes intensive online programs will likely always work best in conjunction with hands-on therapy to varying degrees. "It's early days but we are getting results that consistently show that online interventions can be just as effective as face-to-face. But I don't think it will fully replace clinicians. Some clients will always prefer to meet with someone or will really benefit from the accountability of knowing they will meet someone."

Macquarie University's own eCentreClinic, for example, holds online courses for adults living with conditions from depression to PTSD and chronic pain, as well as a suite of wellness programs. These run over eight weeks and, like the Cool Kids programs, are based on CBT principles, though patients are given an option to receive weekly support from a therapist or contact when needed.

"The adult space is at least a couple of steps ahead," McLellan says, "not only in the research – at least in anxiety – but also in terms of the government assistance at a Commonwealth level. But we're now at a crucial point where children's mental-health research is building and we can hopefully use the models in the

adult space to give families access in a timely manner. We're at a nexus where we're hoping the Government is going to get on board for children's offerings, whether these are for school or at a family level. And I think we really need to draw together in one voice."

The rigour of scientific research was a drawcard for Sarah and Becky. From Far-North Queensland, mother and daughter each underwent a two-hour phone assessment before starting with Cool Kids. "I was very happy to support a research-based program, to see how it was going to have an impact and know that they were continually updating and refining. I also wanted to know it was a justified program. There's many an app or a program I can buy online but I don't know if they're going to work," Becky says.

There were other bonuses once the 10-week program began. "I'd have a phone call with a psychologist for 10 minutes a week. It helped me recognise, too, that sometimes I wasn't helping the situation. I'm a parent guiding her through the activities but I didn't have a psychologist's knowledge. So I learnt skills the same time she did." A home-based program meant everyone in the family – including, in this case, grandparents – was on board with strategies, while flexibility was a great benefit to the juggling act of raising kids and working. And it took the heat off in unexpected ways. "If we went to a counsellor booking, some days she was too tired or a bit anxious and the activities weren't going to work. But you're given a week to do a list of activities, so I had a deadline I could play around with," Becky says.

Sarah learnt how to unpack her anxieties – to identify what these were and to notice the changes in her body when they took hold – and, crucially, she was taught strategies to deal with her fears. There were rewards with each small success and much goal-setting. "The main one was she needed to jump on a plane at the end of the 10 weeks without her aunty and uncle to visit her aunty for a celebration trip." And she did, with flying colours.