Looking Ahead, Looking Up

Medical science changes and improves countless lives every day. Thanks to advances made throughout history, many conditions which would once have been untreatable are now manageable.

Where once some would have been shamed and isolated because of their lived experience of mental illness, we are now moving towards a climate of inclusiveness.

New medications and therapies continue to be developed at a steady pace, each fresh discovery promising to improve the quality of life for countless people throughout the world.

Depression is one of the most common mental illnesses today, and yet it is also one of the most insidious. It can be difficult to diagnose, and many people who experience depression may not seek help due to the fact they don't recognise its symptoms.

The first port of call for many who are concerned about their wellbeing is their GP, who does not commonly specialise in mental health treatment.

GPs are reliant on asking the right questions of their patients to assess their condition, as well as listening to their description of symptoms, and some cases of depression may not be recognised.

However, science is working to address this problem with some novel approaches that may become commonplace in the future.

If you're anything like me, you hate the idea of talking to a machine. The beep after a recording on an answerphone asks you to leave a message is invariably the cue to hang up, and ring back later when there is likely to be a human being on the other end of the line.

What if, however, the machine you were talking to could help diagnose your depression through a brief "conversation" and potentially change your life?

That's the aim of one talented group of computer scientists at the University of Southern California in the US, and their creation of the computer program known as SimSensei.

Using a Microsoft Kinect camera, SimSensei monitors your physical responses as you answer a number of leading questions.

It collects data on such things as your body language, how much you smile, where your gaze is in relation to the camera, and collates all this information to give a diagnosis of whether or not you're experiencing depression.

Amazingly, in a trial involving 60 participants, half of whom had previously been diagnosed with depression, the software was capable of correctly determining 90% of these cases.

Another development that is on the bleeding edge of medical science is a blood test to diagnose major depression in adults.

The test measures the levels of nine different RNA markers in the blood, which interpret the DNA's genetic code and carry out instructions.

This discovery marks the fulfilment of a decades-long search for a biological test for depression, and is significant because it will in the future enable medical practitioners to make a concrete diagnosis.

Moreover, the test will also be able to determine which patients may be at risk of depression in the future, even if they are not currently experiencing symptoms.

Not only can this procedure be used to diagnose depression, but it can assist in tracking the progress made in its treatment, and help predict what sort of therapies will best be suited to each individual patient.

These are just two of the many initiatives currently underway to help diagnose and treat depression.

It is safe to say that the future is looking brighter thanks to medical science.

Tony Spencer

Taranaki Kowhaiwhai panel - The Hammerhead shark, Mangopare - 'keep positive, see it through'