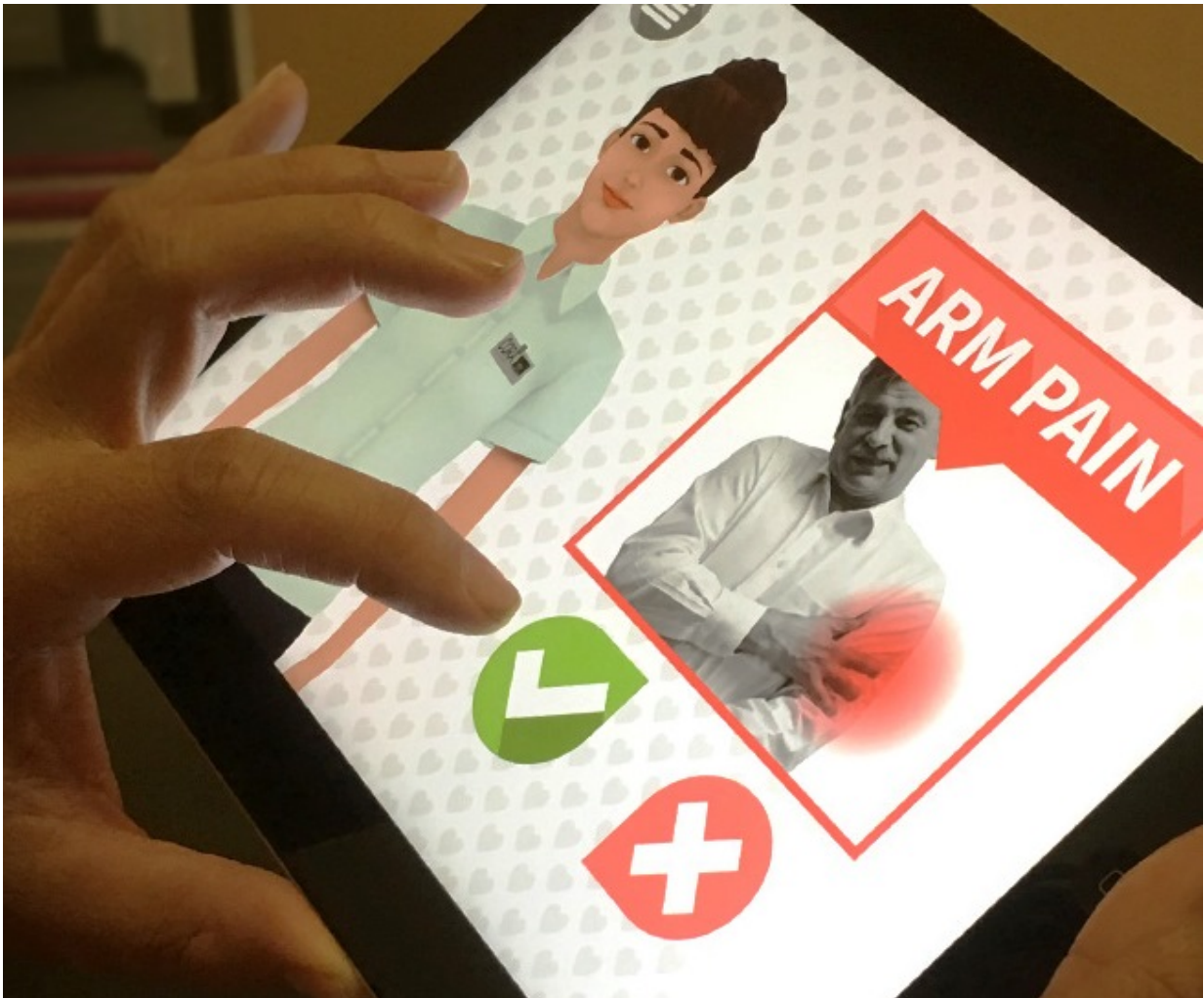


Innovative game informs on heart disease

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Arm and chest pain, cold sweat, nausea, dizziness and shortness of

breath could all be signs of a pending heart attack, according to the new Flinders' School of Nursing and Midwifery iPad 'game.'

The [mobile app](#) is being developed to encourage better understanding of the warning signs and appropriate response to [heart attack warning signs](#) to a wider audience, including older and migrant groups and people with low literacy.

The avatar-based [app](#), developed by SA animation studio Monkeystack, is an innovative 'gamification' of healthcare education to teach people what to look for and what actions to take in the event of a heart attack.

A friendly computerised 'nurse' called Cora aims to put some fun into health education with the interactive education app designed to improve potential patients' knowledge and responses to acute [heart disease symptoms](#) through a series of easy-to-follow instructions.

More community awareness is needed about cardiovascular disease – the single largest killer of Australians, says Flinders University Professor Robyn Clark, who says [heart attack patients](#) can have up to a 50 per cent chance of having a second event.

The theme of National Heart Week this month (1-7 May) highlighted the need for patients to attend cardiac rehabilitation after a heart attack.

The Professor of Nursing (Acute Care & Cardiovascular Research) at Flinders says that the app was developed in response to numerous studies that show how information technology plays an important role in improving patients' knowledge and self-management ability.

"Retention of information is far greater with an interactive app than with a printed brochure and by using the app we hope to improve knowledge, responses and ultimately save lives," Professor Clark says.

"As well, this app paves the way to an exciting future where we can provide ever more flexible and effective ways to deliver essential education to our patients, including the reported 47 per cent of Australians suffering from functional illiteracy.

"We are also working on other creative ways to communicate more successfully with people from Indigenous and migrant groups in Australia."

Following a successful pilot, the app is now being tested in clinical trials at the Flinders Medical Centre with a full roll-out planned for 2017.

The six-month trial in 2015 resulted in the majority of participants reporting a high level of satisfaction with the app (87.3%) who said the app taught them how to recognise and respond to symptoms of heart attack.

Their knowledge increased by more than 15% and symptom recognition increased by more than 24%.

Patients who have suffered a heart attack – and their families – will be loaned a tablet device with the app before being discharged from the hospital and then for several months afterwards so they can review and refresh their knowledge on recognising symptoms.

Justin Wight, director of online content developer Monkeystack, said that the animation and the games industry had matured and established wide acceptance in the entertainment-education space.

"By gamifying a complex issue, we've been able to develop the app from concept to completion for Flinders School of Nursing and Midwifery.

"It provides the perfect education – the avatar won't forget anything –

and it can work hand-in-hand with nurses."

In keeping with the goals for the app, a female actor was used for Cora's voice.

As the voice tone of the avatar, the animation and app design took multiple factors into consideration including the overall look, font size for text and a quiz before and after the 15-minute lesson to check retention and any gaps in participants' knowledge.

"We wanted to ensure that every generation, including the elderly, could easily follow and interpret the information," Mr Wight added.

A team of cardiovascular experts, patients and IT experts developed the educational tool which is delivered on a tablet device.

Provided by Flinders University

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