



# Newsletter

## Flinders Assistant for Memory Enhancement (FAME) Project

FLINDERS DIGITAL HEALTH RESEARCH CENTRE (FDHRC)

IN THIS ISSUE

## Welcome

We are researchers from Flinders Digital Health Research Centre at Flinders University. Together with our Consortium Partners Dementia Australia and Southern Cross Care and backed by a Research and Innovation Grant from a Dementia and Aged Care Services Fund, we are exploring supportive roles of digital technologies to empower people to age in in their own communities.

additional 4 participants were unable to continue the study once enrolled due to sickness.

We have now conducted 7 exit interviews with participants that successfully completed the study, and have booked in the remaining participants for exit interviews that will be conducted over the coming months.

## Project Update

### Project Update

At the conclusion of phase I of the study, we received 117 study enquiries. Of the 117, we telephone-interviewed 80 participants and found that 67 participants were eligible. We then successfully enrolled 60 participants (mean of age = 76), 57 of whom completed the full study. Three participants needed to drop out as their cognitive decline was manifesting into frustration with the devices, and they could not continue.

We are now well-and-truly into phase II of the study. The recruitment stage has finalised, which comprised 94 potential participants, 70 of whom were eligible to enrol. Unfortunately, 7 participants were unable to complete enrolment, and an

## The Team

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Welcome  
 Project Update  
 The Team  
 Next Steps  
 Apps with an Impact  
 Conferences  
 Spotlight on... *Dr Lua Perimal-Lewis*

## Greek Association FAME Demonstration

Recently, Dr Lua Perimal-Lewis presented the FAME application (running on an iPad) to the Greek Association. This resulted in generating more interest for the FAME trial within the Greek community, and the project team has received calls following the demonstration for recruitment into the pilot.

## A VERY BIG THANK YOU!

We extend our most sincere thanks to the participants in the FAME Study. Without you, this study would not be in progress! We are overwhelmed by your generosity and feedback and are so grateful to have you all working with us in this project.

## Next steps

### Exit interviews and analysis

The final step of phase II of the pilot study is the trial exit interview. As previously mentioned, we have conducted 7 exit interviews. The remaining participants are booked in for an exit interview which will be performed over the following months. The exit interviews comprise similar cognitive tests to the entry interview, and are conducted to determine if the FAME intervention, whether it be cognitive or physical exercise, has had an improvement on the participant's cognition. Once all exit interviews are completed, we will be able to determine this potential cognitive improvement using complex statistical analyses.

### What we have learned

One of the main themes to emerge anecdotally from the participants in phase I and II is the common phrase "what you put in is what you get out". The participants that are frequently using the devices have reported an increase sense of clarity in the implementation of their day-to-day tasks, and a suitable distraction from stressful events in their life. Moreover, a number of participants are reporting a return of their vocabulary to an improved state, where they can easily recall words. In contrast, participants who did not use it on a frequent basis have reported no change to their cognitive abilities. Clearly this is a challenge that we need to focus should we move into a further phase of the trial.

### Future work

Based on the anecdotes from the participants, It is likely that an app needs to be designed which is both cognitively engaging and simple in design so that senior people never feel over-whelmed or frustrated. This app will also need to be designed so that a carer or researcher can receive daily usage reports and a summary of the results from each cognitive task attempted. This way a sense of progression can be recorded and referred to when deciding on future action/treatment.

## Apps with an impact

### Brain Yoga

An app that is frequently used by our participants and reported to be engaging, yet relaxing, is Brain Yoga. Brain Yoga is a free app found on both iOS and Android application stores. It is designed to target multiple cognitive functions, such as memory, visuospatial orientation, word retrieval, logical reasoning, mathematical skills and cognitive inhibition. It has a simple design with aesthetically-pleasing animations which has been found to sustain usage.



### Duolingo

Duolingo is another free app found on both mobile application stores. Duolingo is designed to teach the user a new language, which the user can chose and change at any time. Our participants are reporting significant improvement to their word retrieval and expression when frequently used. However, due to its challenging nature, a number of participants have difficulty keeping up with the difficulty-curve and report significant frustration with the app.



## Conferences

### Impact Seed Funding Initiative

Due to our generous community making donations to Flinders University, Dr Lua Perimal-Lewis was awarded the *Impact Seed Funding for Early Career Researchers* grant

last year which has allowed her to attend the OpenLivingLab Days conference and workshop in July of this year which was organised by the European Network of Living Labs in Geneva, Switzerland. There she is enhancing her practical skills of user-driven innovation and learning how to advance her co-creation methodology tools.

### Health Informatics Conference

In August of this year, researchers from the Flinders Digital Health Research Centre will have a booth at the Health Informatics Conference (HIC) that will be held in the Melbourne Convention and Exhibition Centre. HIC is the largest e-health, digital health, and health informatics conference in Australia. Here we will network with some of the most forward-thinking health professionals in the world and attempt to form collaborations with domestic and international research teams.



## Spotlight on...

### Dr Lua Perimal-Lewis

Lua is a Research Fellow at Flinders Digital Health Research Centre. Her research flagship area is in 'Digital Health Supporting Our Ageing Society'. Lua is the principal investigator on the Flinders Assistant for Memory Enhancement (FAME) study and is the project coordinator for the Dementia and Aged Care Services project.

For more information, visit:

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