

REPORT OF RESEARCH RESULTS

REPORT OF UTILISATION OF RESEARCH GRANT

1) REPORT OF RESEARCH RESULTS

(a) Title

A psycho-educational intervention for family caregivers of patients with dementia using a mobile application: a randomized controlled trial

(b) Primary Researcher

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Co-researchers

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(c) Summary

At present, we are unable to provide the result of the research at this moment as we are still in the process of developing the proposed mobile application and finalizing the 12 customized animated videos.

(d) Aim of research

This study aims to develop a mobile application and examine the efficacy of a psycho-educational intervention for family caregivers of patients with dementia (PWD) in managing behavioural and psychological symptoms of dementia (BPSD) using the mobile application, when compared with the routine care.

(e) Method of Research & Progression

Method of Research

1) Design

A randomized controlled trial with process evaluation

2) Setting and participants

We aim to recruit 152 family caregivers who are primary caregivers of patients with mild to moderate stage dementia from those attending the Department of Geriatric Medicine's Memory Clinic and Geriatric Medicine Clinic at Singapore General Hospital. Participants will be randomized into control or intervention group.

3) Interventions

Control group: Participants receive routine outpatient services and community services.

Intervention group: Participants receive routine care plus the psycho-educational intervention delivered through mobile application.

4) Outcome measures

- Neuropsychiatric Inventory Questionnaire

- Revised Memory and Behaviour Problem Checklist
- Centre for Epidemiologic Studies Depression Scale
- Zarit Burden Inventory
- Family Crisis Oriented Personal Evaluation Scales
- Gain in Alzheimer Care Instrument

Data will be collected at the baseline, immediately after intervention and 3-month after intervention. Process evaluation includes interviewing participants on their appraisal of the intervention using mobile application after completion of the intervention.

5) Data analysis

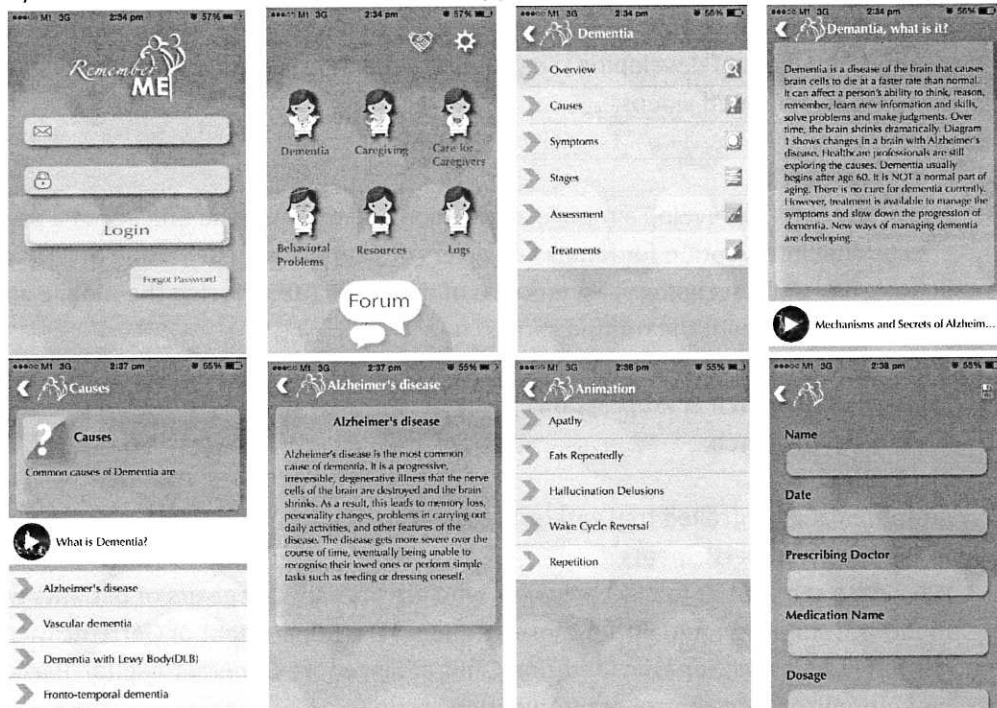
Repeated measures ANOVA will be used to test for differences of outcomes between the two groups in the pre-test, immediate post-test and 3-month after intervention. Interview data will be transcribed and analysed by content analysis.

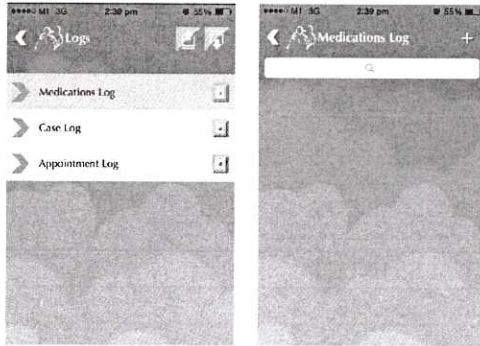
Progression

The development of the mobile application is still at the Beta phase and awaiting to be uploaded to the Apple App Store & Google Play Store in approximately two months' time. In the meanwhile, the team is finalizing the 12 customized animated videos and developing the forum which is the last feature of the app.

(f) Results of Research

1) Below are some screenshots of the app:





- 2) Please click on the following links to view the sample animated videos:
<https://www.youtube.com/watch?v=9cQJ1VT5yJ0&feature=youtu.be>
<https://www.youtube.com/watch?v=T-XWhaw0ijs&feature=youtu.be>

(g) Future Areas of Take Note of, and Going Forward

Currently, the mobile application is only available in English due to budget constraint. We will try to apply for other available funding to translate the contents of the application to Mandarin, Malay and Tamil so that other caregivers of patients with dementia who are unable to understand English should be able to access and utilise this application to help them to take care and manage their loved one with dementia.

(h) Means of Official Announcement of Research Results

We will publish the study protocol and the research results in peer-reviewed journals and present in local conferences. The prerequisite requirement of publishing the study protocol is to register the randomized controlled trial. Therefore, we have registered the study with the Current Controlled Trials Limited. The study record can be viewed here:
<http://www.isrctn.com/ISRCTN16021595>