

A Feasibility Randomised-Controlled Trial of Two Online Psychological Interventions for Stroke Survivors



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BACKGROUND

- c. 75% of stroke survivors affected by executive dysfunction^{1,2}
- Executive functioning (EF) rehabilitation recommended in guidelines
- There is a lack of robust efficacy evidence supporting specific EF rehabilitation interventions³**
- We evaluated the **feasibility and acceptability** of an RCT of a theory- and evidence-based online EF rehabilitation intervention

Have you used the internet as part of your stroke journey?

Do you want to take part in a study researching two online psychological interventions for stroke survivors?

Hi, I am Crina Ene, a Trainee Clinical Psychologist at the University of East Anglia. I am researching two online interventions for stroke survivors, to help with setting and achieving goals and solving problems, as well as learning more about stroke. The interventions last for two weeks.

To be eligible for this study you will need to:

- Be a stroke survivor
- Be over 18 years old
- Have access to a computer and email address
- Be registered with a GP and be willing to provide your GP details
- Not have any physical or mental health difficulties (including depression) that are severely impacting your life at the moment
- Not be currently involved in another research trial
- Not have visual, auditory, or motor difficulties that would severely impact your ability to attend to an online intervention, read the participant information sheet and consent form, or complete online questionnaires

Please get in touch by emailing me at c.ene@uea.ac.uk if you would like to find out more about the study.

Act FAST and call 999.

Arm weakness, Speech problems, Time to call 999.

Lizard Brain (Brain stem and Cerebellum), Autopilot Fight & Flight

Mammal Brain (Limbic system), Emotions, Memories, Habits

Human Brain (Neocortex), Language, thinking, imagination, consciousness, logic and reasoning

EF intervention

- Targeted skills relevant for setting goals, self-monitoring, and problem solving (Berkley, 2012; Stuss, 2011).
- Based on **Goal Management Training** (GMT; Levine et al., 2000; Levine et al., 2011) and the **Goal Management Training Framework** (Miotto et al., 2009; Wilson et al., 2009)

Goal Management

- 1 Identify goals
- 2 Weigh up pros and cons of different ways of achieving them
- 3 Break things down into steps
- 4 Put plan into action + monitor what we're doing

Can you think of a time after stroke when you needed to do something **important** and it worked out fine?

What about a time when it didn't?

What is executive functioning and why is it important?

- Deciding what we want to do
- Thinking of how to do it
- Starting to do it
- Keeping track time
- Stopping at the right time

Features of both conditions

- Online
- Two 30-minute videos
- One video / week
- One homework task / week
- Provided over email

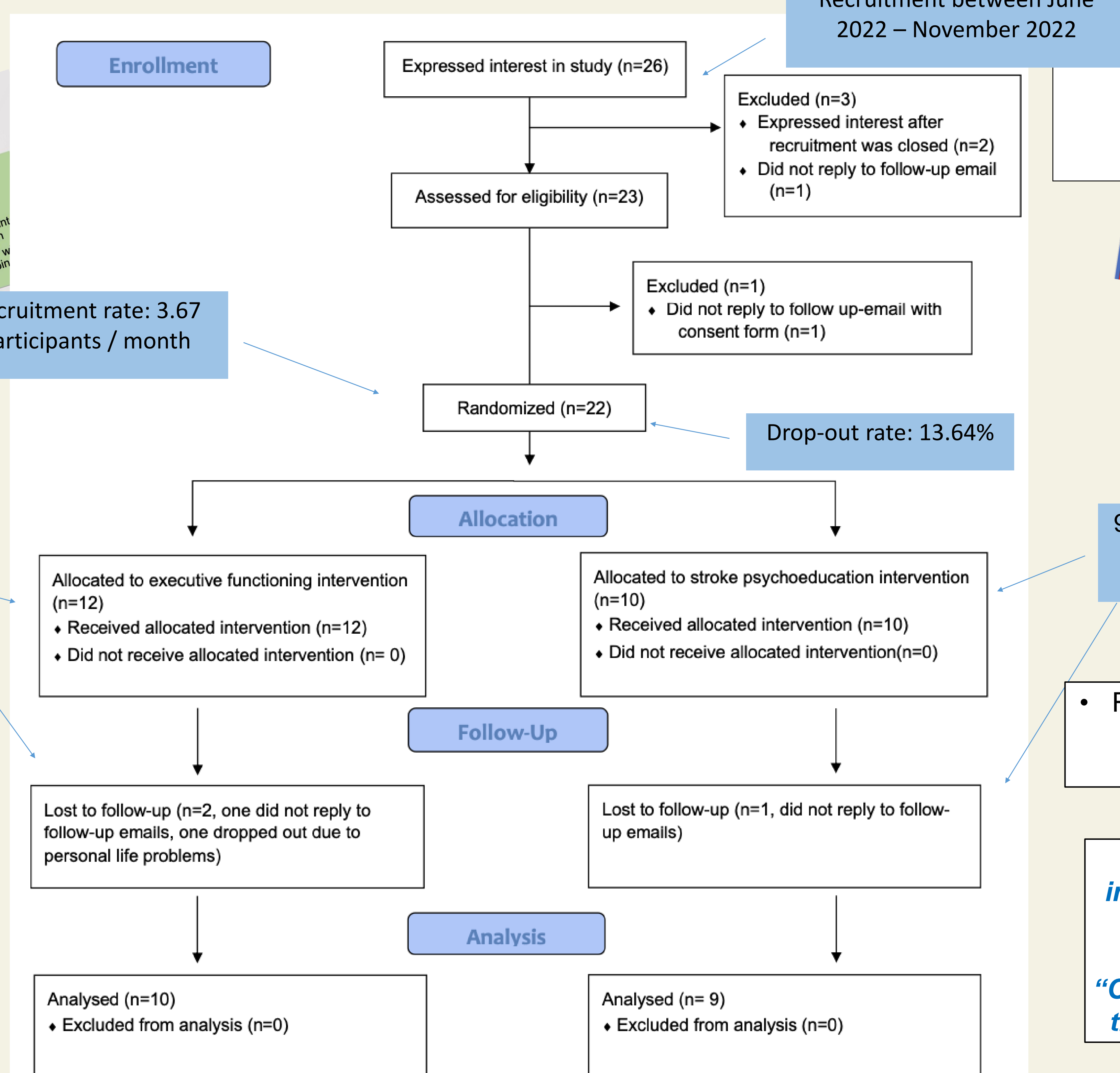
Stroke Psychoeducation

- Definitions and descriptions of different types of stroke
- The Impact of strokes affecting different parts of the brain
- The role of different professionals

Preventable stroke risk factors

- High blood pressure
- Cardiovascular conditions
- Smoking
- Drinking alcohol above recommended limits
- High cholesterol
- Unmanaged diabetes
- Lack of exercise
- High salt consumption in diet

PARTICIPANT FLOW



Recruitment rate: 3.67 participants / month

84% EF group completed the study and outcome measures

90% stroke psychoeducation group completed the study and outcome measures

- Relevance of the intervention $\bar{X}=3.4 / 5$
- Ease of engagement $\bar{X}=4.2 / 5$
- Usefulness $\bar{X}=3.4 / 5$

- Relevance of the intervention $\bar{X}=4 / 5$
- Ease of engagement $\bar{X}=4 / 5$
- Usefulness $\bar{X}=3.88 / 5$

"I liked the level of detail required of us to create and implement our goals"

"Reinforced the mechanisms I have adopted since my stroke"

"Lots of relevant informative information helped me to properly understand / relate"

"Clear presentation of the brain and the function of its different parts"

Participants completed the post-intervention questionnaires 27.21 (SD = 16.49) days after baseline (intended =14 days post baseline).

Outcome measures

Baseline - 2 weeks post - 1 month follow-up

Measure	Group η ²
- DEX-R ⁴ (executive functioning)	.010 (small)
- ICECAP-A ⁵ (quality of life)	.002 (small)
- SWEMWS ⁶ (wellbeing)	.010 (small)
- SSE ⁷ (self-efficacy)	.033 (small)
+ feedback survey (13 questions)	

Fifteen of the 22 participants (68%) required at least one reminder.

The one-month follow-up questionnaires were completed in line with the intended timeline

References:



Our results suggest that the brief asynchronous online executive functioning intervention and stroke psychoeducation control would be feasible and acceptable to research in a full trial. No harms or adverse effects were reported in either group.