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Testing a new aphasia therapy for words and conversation delivered in the virtual world, EVA Park

Submission date
29/09/2025

Recruitment status
No longer recruiting

Registration date
16/10/2025

Overall study status
Completed

Last Edited
29/09/2026

Condition category
Nervous System Diseases

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
Aphasia is a communication disability common after stroke. People with aphasia can struggle to find words, put words into sentences, share stories, understand spoken language, read and write. Rehabilitation priority setting partnerships for stroke highlight a need for therapies that address the communication and wellbeing needs of people living with aphasia long term. This intervention sought to address both the linguistic and social consequences of aphasia following stroke by making use of virtual reality technology.

Who can participate?
People living with aphasia who were more than 4 months post stroke.

What does the study involve?
An 8 week behavioural intervention delivered via the virtual world EVA Park. Participants received 40hrs of treatment in both individual sessions and group conversation sessions.

What are the possible benefits and risks of participating?
It is possible that there are benefits to language and wellbeing but these are not established. There are not medical risks but participants will give up some of their time and may find it tiring.

Where is the study run from?
City St Georges, University of London (UK)

What is the study starting and how long is it expected to run for?
The study started in September 2020 and finished in February 2022.

Who is funding the study?
School of Health Sciences, City University of London (UK)

Who is the main contact?
niamh.devane.2@city.ac.uk

Contact information

Type(s)
Public, Scientific, Principal investigator

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Additional identifiers

Protocol serial number
ETH1920-1223

Study information

Scientific Title
A feasibility randomised controlled trial of Virtual, Elaborated Semantic Feature Analysis (VESFA)

Acronym
VESFA

Study objectives
Feasibility: Can the virtual world, EVA Park, successfully host VESFA intervention, as assessed by post therapy questionnaire data and session cancellation rates; Isa future VESFA trial feasible, as assessed by recruitment and retention data?

Acceptability: Are the VESFA intervention and trial processes acceptable to participants, as assessed by rates of attrition, missing data and post therapy questionnaire data?

Clinical Outcomes: Does the VESFA intervention show promise of benefit on outcome measures oflanguage, communication, mood and quality of life?

Ethics approval required
Ethics approval required

Ethics approval(s)

Approved 01/09/2020, Senate Research Ethics Committee. City, University of London (Northampton Square, London, EC1V 0HB, United Kingdom; +44 2070408821; haplo@city.ac.uk), ref: ETH1920-1223

Primary study design
Interventional

Study design
Feasibility randomized controlled trial

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Communication intervention for patients with aphasia

Interventions
The VESFA trial was a single-blind, phase II feasibility randomised controlled trial comparing usual care plus the VESFA intervention (VESFA+UC) with a usual care control (UCC). Participants were randomised to two conditions: VESFA + Usual Care (VESFA+UC) and Usual Care Control (UCC).

Block randomisation was conducted by a member of the research team who was blind to test data using a random list generator (www.random.org/lists). When six participants had been recruited, they were randomised into two groups of three, with the a priori stipulation that 1 - 3 on the list would be VESFA+UC and 4 - 6 UCC.

Participants randomised to VESFA+UC (target n=18) received 40 hours of treatment, comprising two one to one (60min) sessions and two group (90min) sessions per week (5 hours per week) for 8 weeks. One-to-one session involved elaborated semantic feature analysis therapy (Efstratiadou et al., 2019). Participants were taken through the standard protocol of SFA questions about the semantic features of each target word, after which participants were required to generate a phrase or sentence containing that word. Group sessions involved topic-based conversations giving opportunities to use the treated vocabulary. For example, participants practised food vocabulary in the EVA Park restaurant by talking about their favourite experiences of eating out. All treatment was delivered remotely in EVA Park.

Treatment was delivered in sets of three participants at a time, to allow for a small group per set. Six sets of treatment were delivered over the 14-month intervention period (6 sets of 3 participants, total = 18 participants). Set 1 began in December 2020 and set 6 completed in February 2022.

Participants randomised to the UCC (target n=18) were not offered VESFA therapy. They continued to access their existing health, social care and charity services.

Intervention Type
Behavioural

Primary outcome(s)

1. Feasibility of delivering the intervention remotely is measured using participant questionnaires and session cancellation rates due to technical difficulties at post-intervention
2. Feasibility of recruitment is measured using screening logs and consent rates at baseline
3. Feasibility of retention is measured using participant availability data at follow-up
4. Acceptability of research processes is measured using dropout rates and proportion of missing data per outcome measure across baseline, mid-point and follow-up
5. Acceptability of research processes is further measured using post-therapy and usual care questionnaires administered at post-intervention
6. Acceptability of intervention to participants is measured using adherence rates recorded during the intervention period and post-therapy questionnaire responses at post-intervention

Key secondary outcome(s)
1. Treated word retrieval is measured using the VESFA Naming Test at T1, T2 and T3
2. Independent word retrieval is measured using the Boston Naming Test at T1, T2 and T3
3. Functional communication is measured using the Scenario Test, UK at T1, T2 and T3
4. Word production in discourse is measured using the Nicholas and Brookshire protocol at T1, T2 and T3
5. Health-related quality of life is measured using the Stroke and Aphasia Quality of Life questionnaire-39 item, general (SAQOL-39g) at T1, T2 and T3
6. Mood is measured using the General Health Questionnaire-12 item (GHQ-12) at T1, T2 and T3
7. Aphasia severity is measured using the Western Aphasia Battery – Revised (WAB-R) at T1, T2 and T3

Completion date
09/02/2022

Eligibility

Key inclusion criteria
1. Diagnosis of stroke
2. At least four months post-stroke
3. Aged 18 years or older
4. Presence of word-finding difficulties due to post-stroke aphasia
5. Score of less than 76/100 on the naming and word finding subtests of the Western Aphasia Battery (Kertesz, 2007)
6. Score of 6/10 or above on the Frenchay Aphasia Screening Test (Enderby et al., 1987)
7. Sufficient comprehension to:
- Understand the participant information sheet
- Complete outcome measures such as the SAQOL-39g
- Follow instructions in a virtual environment without face-to-face support
8. Availability of a person (living in the same household or COVID bubble) to assist with technical issues
9. Access to a computer meeting the minimum system requirements for Second Life or willingness to borrow a laptop from the University
10. Willingness to grant remote access to their computer via Zoom remote control or TeamViewer for technical support

Participant type(s)
Population

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
18 Years

Upper age limit
100 Years

Sex
All

Total final enrolment
34

Key exclusion criteria
1. Diagnosis of a condition affecting cognition other than stroke (e.g., dementia)
2. Severe uncorrected visual problems that would prevent access to computer-based stimuli
3. Severe uncorrected hearing problems that would prevent access to computer-based stimuli
4. Presence of a severe or potentially terminal co-morbidity
5. Not being a fluent English speaker prior to stroke (based on self or family report)

Date of first enrolment
05/10/2020

Date of final enrolment
20/04/2021

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
City, University of London
Northampton Square
London
England
EC1V 0HB

Sponsor information

Organisation
City St George's, University of London

ROR
https://ror.org/047ybhc09

Funder(s)

Funder type
University/education

Funder Name
The School of Health and Medical Sciences. City, University of London

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study will be available upon request from Niamh Devane, niamh.devane.2@citystgeorges.ac.uk

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Other publications	Developing a new aphasia therapy for a virtual world: the Virtual Elaborated Semantic Features Analysis (VESFA) intervention	05/03/2025	29/09/2025	Yes	No
Other publications	Treatment Fidelity in a Feasibility Trial of the Aphasia Intervention, Virtual Elaborated Semantic Feature Analysis	01/05/2025	29/09/2025	Yes	No
Other publications	What Conversation Topics are Meaningful to People with Aphasia? A qualitative study	23/02/2024	29/09/2025	Yes	No
Participant information sheet		11/11/2025	11/11/2025	No	Yes
Study website		11/11/2025	11/11/2025	No	Yes
Thesis results		01/04/2023	29/09/2026	No	No