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Trying out a virtual reality café for young people with eating disorders

Submission date
02/04/2026

Recruitment status
Recruiting

Registration date
23/04/2026

Overall study status
Ongoing

Last Edited
23/04/2026

Condition category
Mental and Behavioural Disorders

[X] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims

Eating disorders are serious mental health conditions. Many people with eating disorders find social eating settings, like cafes and restaurants, challenging. This can affect their life and can make recovery more difficult. The aim of this study is to find out whether it is possible to offer a new kind of treatment in the NHS to help people with eating disorders who find places like cafes difficult. The treatment we are inviting people to try out is a virtual reality (VR) café, where people with eating disorders can practise situations they find difficult, like ordering food or interacting with café staff, in a safe and controlled way. The treatment has been developed with people who have current and past experience of eating disorders and clinicians who are experienced in treating eating disorders. We want to find out whether people will take part in a study like this, whether they will stay in the study until it ends, and whether they find the VR café useful.

Who can participate?

People aged 14-25 years who are currently receiving treatment for any eating disorder in one of two participating NHS trusts can participate

What does the study involve?

The study involves attending up to six 1-hour sessions using the VR café, with support from a trained clinician. People who take part will attend these sessions as well as carrying on with their usual treatment for their eating disorder. VR café sessions will take place where participants usually see their eating disorder team or at their NHS mental health trust's research base. We'll collect information about how many people agree to take part, how many people complete the VR sessions, and how useful people find the VR café. Participants will be asked to complete some questionnaires before they start VR sessions, at the end of their first VR session, 6 weeks after their first VR session, and 3 months after their first VR session. We'll also collect information about how people engage with the VR environments, and some types of information from health records to help us understand which people try out the VR café. To find out more about people's experiences of participating, we'll interview some of the young people who try out the VR café, some of their parents/carers, and some of the clinicians who support people using the treatment. We'll also interview some of the people who didn't want to take part in the study to understand why this might be.

What are the possible benefits and risks of participating?
As this is the first time the VR café has been used in the NHS, we don't know whether everybody will benefit, but participants may find the treatment helpful for practising challenges related to going into and ordering food and drink in social eating environments such as cafés.
Some people can experience motion sickness while using a VR headset. We believe that this risk is very small because participants will be seated while using the VR café. Some participants might also find reflecting on their experience of having an eating disorder distressing or find trying out the treatment challenging. Clinicians will support participants at all times during their use of the VR café, and participants can choose to take off the VR headset or stop VR café sessions altogether at any time.

Where is the study run from?
University of Bristol (UK)

When is the study starting and how long is it expected to run for?
June 2026 to October 2027

Who is funding the study?
National Institute for Health and Care Research (NIHR) (UK)

Who is the main contact?
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Additional identifiers

Integrated Research Application System (IRAS)
362410

Central Portfolio Management System (CPMS)
70226

National Institute for Health and Care Research (NIHR)
302271

Study information

Scientific Title
A feasibility study of a virtual reality café for people with eating disorders

Study objectives
The aim of this study is to establish whether it is feasible to recruit, retain and follow-up participants with eating disorders to receive our newly developed virtual reality (VR) café intervention in addition to their normal treatment. We will also assess the feasibility of collecting outcome data and assess the completeness of these data.

We will assess:
1. Recruitment: the number and proportion of patients who are potentially eligible, approached for consent, and consent to participate (routes via which participants were approached or contacted the relevant NHS research team will be documented)
2. Retention: the number and proportion of participants completing the study
3. Demographic, diagnosis and service use data on the individuals we recruit and what other treatment they receive
4. The numbers of sessions of VR completed, and the pattern of use of the VR intervention
5. The acceptability of the intervention, including via qualitative interviews
6. Any adverse experiences in relation to the VR intervention

We will collect both qualitative and quantitative data from participants, parents of younger participants, and clinicians, as well as attempting to collect demographic and qualitative data from potential participants who decide not to participate.
We will also passively collect eye-tracking data to enable us to have a more detailed understanding of what participants attend to within the VR environment.

Ethics approval required
Ethics approval required

Ethics approval(s)
approved 27/01/2026, West of Scotland REC 5 (West of Scotland Research Ethics Service Level 2, Administration Building Gartnavel Royal Hospital 1055 Great Western Road, Glasgow, G12 0XH, United Kingdom; -; ggc.wosrec5@nhs.scot), ref: 25/WS/0200

Study design
Non-randomized study

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Eating disorders

Interventions
The VR intervention will involve sessions of up to 1 hour in length, in which the participant will use the VR café scenarios with support from the clinician. The clinician will work with the participant to plan, support and debrief from the VR café intervention. The intervention can be delivered either by the participant's own clinician within the Eating Disorder team (if they have been trained to do so) or by a member of the relevant NHS research team with experience of working in mental health, according to clinician availability and participant preference.

Intervention Type
Behavioural

Primary outcome(s)
Feasibility of recruitment and retention will be measured by assessing the number of potentially eligible patients in the clinical settings during the study period, the number of patients

approached to participate via each recruitment route during the study period, the number of participants consenting to participate during the study period, the number of potential participants declining to participate (and reasons given) during the study period, and the number of participants who consent to participate who remain in the trial at 3-month follow-up.

The Feasibility of Assessment Battery will be measured by assessing the number of participants completing all measures at baseline and the number of participants completing all measures at the end of session 1 and at 6-week and 3-month follow-ups.

Feasibility of the intervention will be measured by:
1. Documenting which clinician delivers the intervention (patient's own clinician or a member of the NHS research team with experience of working in mental health) during the study period
2. Assessing VR engagement metrics, including:
2.1. Participant goal-setting re which scenarios they want to try and how many times they want to try it, captured at the end of the study period
2.2. Number (and which) VR sessions are completed, captured at the end of the study period
2.3. Time spent using VR, captured at the end of the study period
2.4. How often scenarios are repeated, captured at the end of the study period
2.5. Whether participants and clinicians think further sessions would have been useful for each participant, captured at the end of the study period

Fidelity to the treatment will be measured by asking both the participant and the clinician to complete a brief measure, documenting whether they (1) set goals in relation to the VR scenario they would try, (2) tried one or more VR scenarios, and (3) discussed the experience of completing the scenario and reviewed their goals, completed at the end of each VR session.
1. Acceptability of the VR intervention to participants, through the proxy measures above, as well as by questions on satisfaction, perceived burden, ease of use and likelihood of recommending to others, collected 6 weeks after the first VR session.
2. Any adverse reactions to VR (e.g., motion sickness; stopping a session due to distress), collected during the study period.

Key secondary outcome(s))

Questionnaire measures:
1. Anxiety and avoidance in relation to cafes will be measured using a bespoke questionnaire at baseline, end of VR session 1, 6 weeks after the first session, and at the 3-month follow-up
2. Self-efficacy in relation to cafes will be measured using a bespoke questionnaire at baseline, end of VR session 1, 6 weeks after the first session, and at the 3-month follow-up
3. Behaviours in relation to visiting cafés will be measured using a bespoke questionnaire at baseline, end of VR session 1, 6 weeks after the first session, and at the 3-month follow-up
4. Eating disorder symptoms will be measured by the Eating Disorder Examination Questionnaire (EDEQ) at baseline, 6 weeks after the first session, and at the 3-month follow-up
5. Symptoms of Avoidant/Restrictive Food Intake Disorder (ARFID) will be measured by the Short ARFID questionnaire at baseline, 6 weeks after the first session, and at the 3-month follow-up
6. Impact of having an eating disorder on life will be measured by the Clinical Impairment Assessment (CIA) at baseline, 6 weeks after the first session, and at the 3-month follow-up
7. General anxiety will be measured by the General Anxiety Disorder-7 (GAD-7) (18-25 year olds) or Revised Children's Anxiety and Depression Scale (RCADS) (14-17 year olds) at baseline, 6 weeks after the first session, and at the 3-month follow-up
8. Depression will be measured by the Patient Health Questionnaire-9 (PHQ-9) (18-25 year olds) or Revised Children's Anxiety and Depression Scale (RCADS) (14-17 year olds) at baseline, 6 weeks after the first session, and at the 3-month follow-up

9. VR side effects will be measured by the Simulator Sickness Questionnaire (SSQ) at baseline and at the end of each VR session
10. Sense of presence/place illusion will be measured at the end of the first VR session

Service use measures:
Service use measures will be gathered from electronic health records encompassing the study period until the 3-month follow-up:
1. Recorded diagnosis, comorbidities and prescribed medication
2. Nature of “treatment as usual” being received
3. Number and timing of clinical contacts within the eating disorders team, by professional group, before and after consenting to study participation
4. Number and timing of clinical contacts within the mental health trust, by professional group before and after consenting to study participation
5. BMI/% weight for height at the point of (1) starting treatment, (2) joining the study and (3) at 3-month follow-up (to help inform whether, for those for whom weight restoration is part of treatment, there is an optimum time during weight restoration to engage in this treatment)
6. Number of GP contacts during study participation
7. Number of contacts with other health professionals during study participation
8. Number of A&E contacts during study participation
9. Duration of admission [for inpatients] before and after consenting to study participation
10. Legal status of admission [for inpatients] before and after consenting to study participation

VR headset measures:
1. Head, hand and eye-tracking data will be collected via VR headsets in all VR sessions during the study period

Qualitative data collection:
1. Qualitative interviews will be conducted with a subset of trial participants, decliners, parents /carers, and clinicians during the study period

Completion date
30/10/2027

Eligibility

Key inclusion criteria
1. Aged 14-25 years, with any eating disorder
2. Find social eating challenging
3. Currently accessing treatment for an eating disorder in a participating NHS mental health service
4. People aged 16 years or older who consent to participate
5. People aged 14-15 years old who assent to participate and for whom someone with parental responsibility consents to their participation.

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit

14 years

Upper age limit
25 years

Sex
All

Total final enrolment
0

Key exclusion criteria
1. People who lack capacity to consent to participate as assessed during the consent process
2. People who are not able to travel to VR Cafe sessions
3. People who are not fluent in spoken English
4. Members of the project Patient and Public Involvement (PPI) group

Date of first enrolment
01/06/2026

Date of final enrolment
29/05/2027

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Gloucestershire Health and Care NHS Foundation Trust
Edward Jenner Court
1010 Pioneer Avenue
Gloucester Business Park
Gloucester
England
GL3 4AW

Study participating centre
Oxford Health NHS Foundation Trust
Littlemore Mental Health Centre
Sandford Road
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Oxford
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OX4 4XN

Sponsor information

Organisation
University of Bristol

ROR
https://ror.org/0524sp257

Funder(s)

Funder type
Government

Funder Name
National Institute for Health and Care Research

Alternative Name(s)
National Institute for Health Research, NIHR Research, NIHRresearch, NIHR - National Institute for Health Research, NIHR (The National Institute for Health and Care Research), NIHR

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study will be stored in a publicly available repository (https://data.bris.ac.uk/data). Anonymised VR usage data, questionnaire data, and qualitative data will be made available (restricted access) to bona fide researchers on request. The data will become available after the study ends, data analysis is complete, and reports have been written. Participants' consent will be obtained for data sharing and all shared data will be anonymised.

IPD sharing plan summary
Stored in publicly available repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol file	version 1.1	07/01/2026	23/04/2026	No	No