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VR in major trauma rehab: a qualitative study

Submission date
05/05/2025

Recruitment status
No longer recruiting

Registration date
21/05/2025

Overall study status
Completed

Last Edited
21/05/2025

Condition category
Injury, Occupational Diseases, Poisoning

[_] 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
Following serious injuries (major trauma), rehabilitation is very important. It helps people regain their strength, movement, and independence. VR is the name for computer technology that makes a person feel like they are somewhere else. More recently, people are using VR through a headset. The headset is worn over a person's eyes and shows a close-up screen. VR headsets have applications or 'Apps' (like on your mobile phone) which offer games, exercises, guided relaxation, or relaxing scenery. VR could help people recover from injuries. It might make rehab more fun and engaging. VR is starting to be used more in healthcare as a way of helping patients recover. But we have lots to learn about the best ways to use it to help patients. Following major trauma, rehabilitation starts early in the acute hospital setting and can be a gruelling process due to pain, fear of movement, post-traumatic stress, and anxiety. There are several physical and mental barriers that patients feel towards rehabilitation in the hospital. After serious injury, patients who are worried about the threat of pain have been shown to have worse outcomes. Exposure to movement is an effective way to lessen patients' fear of moving due to pain. In other health conditions, the use of VR headsets has been shown to decrease anxiety, pain and the time spent thinking about pain. Usually, this is using the relaxing types of VR. Given the benefits of exposure to movement and the importance of not becoming weaker, we want to know if a more physically active VR treatment could be beneficial for patients' rehabilitation. To the best of our knowledge, there is no research looking at patients' experience of using VR headsets for rehabilitation following serious injury. The study will explore whether patients find VR headsets helpful and acceptable during their rehabilitation in the hospital. This study aims to find out if using virtual reality (VR) headsets can make rehab better, and what people think of using them in the hospital.

Who can participate?
People aged over 18 years who have experienced major trauma injuries and use VR headsets during their rehab in the hospital

What does the study involve?
Patients who agree to take part will have a 30-minute interview with a researcher, which can be in person or done by video call. They will be asked to sign a consent form and fill in a short form about themselves and their injuries. Patients will be asked about their experiences of using VR headsets during their rehab in the hospital to explore what they liked or didn't like about them, and if they found them helpful.

What are the possible benefits and risks of participating?
Benefits: The study could help improve rehabilitation for future trauma patients.

Risks: Reflecting on the recovery from serious injuries may be emotionally challenging. They can stop taking part at any time, without giving a reason.

Where is the study run from?
City, St George's University of London, UK

When is the study starting and how long is it expected to run for?
August 2024 to September 2025. The study has approval to start in December 2025. Interviews will be conducted within 6 months and the study will be written up by September 2025.

Who is funding the study?
There is no additional funding for the study, it is being conducted as part of a Master's in Clinical Research.

Who is the main contact?
Bethany Kenny, Bethany.kenny@stgeorges.nhs.uk

Contact information

Type(s)
Public, Scientific, Principal investigator

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

Integrated Research Application System (IRAS)
346340

ClinicalTrials.gov (NCT)
Nil known

Protocol serial number
2024.0197

Study information

Scientific Title
Patients experience and acceptability of using a virtual reality headset as an adjunct to rehabilitation following major trauma: an interview study

Study objectives
To explore patients' experience and acceptability of using a physically active VR Headset intervention as an adjunct to their rehabilitation following major trauma via semi-structured interview.

Ethics approval required
Ethics approval required

Ethics approval(s)
approved 16/12/2024, West of Scotland Rec 3 (Admin Building, Level 2, 1055 Great Western Rd, Glasgow, G12 XH, United Kingdom; +44 (0)141 314 0212; ggc.WoSREC3@nhs.scot), ref: 24/WS/0158

Study design
Qualitative interview study

Primary study design
Observational

Study type(s)
Treatment, Efficacy

Health condition(s) or problem(s) studied
Inpatients with major trauma

Interventions
Currently St George's University hospital is running a quality improvement project looking at the use of a physically active VR headset interventions as an adjunction to their rehabilitation. Patients undergo a sessions of VR, up to 30min's. They can play physically active games such as boxing, goal keeping, fruit picking, swiping boxes with a sword in either a sitting lying or standing position. Patients who have experienced this intervention (atleast two times) are being invited to participate in a 30-min semi-structured interviews with the lead researcher. The interview transcript is designed around the transtheoretical framework of acceptability (TFA), This framework posits seven constructs that reflect the underlying key dimensions of acceptability of new healthcare interventions (Affective attitude, Burden, intervention coherence, ethicality, opportunity costs, perceived effectiveness and self-efficacy).

Intervention Type
Device

Phase

Not Applicable

Drug/device/biological/vaccine name(s)
Sync VR medical, PICO Headset

Primary outcome(s)
The outcomes will be drawn from thematic analysis of the semi-structured interviews. Intereview we be examined to assess the patients perspective of acceptability of the intervention.
To analyse data relating to acceptability a 2-stage process with be completed. In stage 1, text from the interview transcripts will be deductively coded into the seven TFA constructs to provide the core corpus of data for analysis. In stage 2, text within each construct will be inductively analysed to construct themes that reflect the content and meaning of the data.

Key secondary outcome(s))
There are no secondary outcome measures

Completion date
30/09/2025

Eligibility

Key inclusion criteria
1. Participants aged 18 and over
2. Who sustained Major Trauma injuries as per the TARN inclusion criteria, who used a physically active Virtual reality headset as an adjunct to their rehabilitation on the major trauma ward

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

Key exclusion criteria
1. Unable to speak fluent English
2. Those who lack capacity to engage in the formal consent process or where the treating clinicians (e.g. doctor or occupational therapist) feels that there is cognitive impairment present that would impact the patient from engaging in an in-depth semi-structured interview
3. A prisoner or vulnerable adult who will have difficulties organising and attending a face-to-face or over the phone interview safely and conveniently

Date of first enrolment
01/02/2025

Date of final enrolment
30/06/2025

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
St George's University Hospital NHS Foundation trust
Blackshaw Rd
London
United Kingdom
SW17 0QT

Sponsor information

Organisation
City St George's, University of London

ROR
https://ror.org/047ybhc09

Funder(s)

Funder type
Other

Funder Name
Investigator initiated and funded

Results and Publications

Individual participant data (IPD) sharing plan

The data-sharing plans for the current study are unknown and will be made available at a later date

IPD sharing plan summary

Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet		14/01/2025	21/05/2025	No	Yes
Participant information sheet	Consent form	14/01/2025	21/05/2025	No	Yes
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Protocol file	version 2.1	06/02/2025	21/05/2025	No	No