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Optimising AVATAR therapy for distressing voices

Submission date
16/01/2020

Recruitment status
No longer recruiting

Registration date
22/01/2020

Overall study status
Completed

Last Edited
30/10/2024

Condition category
Mental and Behavioural Disorders

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

Plain English summary of protocol

Background and study aims
The researchers have developed a new talking therapy (Avatar therapy) that aims to help people who hear distressing voices. Avatar therapy involves building an image or 'avatar' of the distressing voice that the person hears on a computer and then, with help from a therapist, the person is given the opportunity to talk to the avatar. Over time, the person is supported to stand up more to the avatar with the hope that they will feel less anxious or upset when hearing the voice in their everyday life. The researchers are trying to find out how many sessions of AVATAR therapy is most helpful for people, so in this trial people will be offered either 6 (brief) or 12 (extended) sessions. In between sessions people are given recordings of their conversations with the avatar that they can listen to as an extra source of support.

To see if Avatar therapy is helpful, people from four NHS areas (South London, North London, Manchester and Glasgow) who have agreed to take part in the project will be randomly chosen to continue receiving their usual care, to receive brief (6 sessions) Avatar therapy in addition to their usual care, or to receive extended (12 sessions) Avatar therapy in addition to their usual care. The purpose of this project is to see whether Avatar therapy helps people when added to the care they normally receive. The researchers would also like to learn more about how this intervention works for people.

Who can participate?
Patients aged 18 years or older, who have been hearing a distressing voice for longer than 6 consecutive months.

What does the study involve?
Everybody who takes part will meet with a project worker for an initial meeting and then after 4 and 7 months. At each meeting, they will be asked about their experiences of voices, their mood, things that worry them and their overall wellbeing. The researchers expect each of the meetings will take about an hour and a half. These can be shorter if the person would like, and they will also be offered breaks during the meetings. The researchers will try to do them at times and locations that are most convenient for them.
After each of these meetings the participant will be asked to complete questionnaires 10 times a day for the following 6 days using a smartphone which has been set up just for this. The

researchers ask people to do this because it gives us a better understanding of how voices affect them in their everyday lives, and the researchers can see whether Avatar therapy is helpful in more detail. This is optional and if they do not want to do it they can still take part in the rest of the study.
After the first meeting, the participant will be randomly allocated by a computer to either continue with their usual care, receive brief Avatar therapy (6 sessions) and their usual care or to receive extended Avatar therapy (12 sessions) and their usual care. A member of the project team will tell them the outcome.

What are the possible benefits and risks of participating?
The researchers hope that those receiving Avatar therapy will find it helpful. However, this cannot be guaranteed. Everyone taking part in the trial including those who do not receive Avatar therapy will be reimbursed for their time. The information from all participants may help us to support others with similar problems. If Avatar therapy is shown to work, then the researchers plan to make it more widely available in NHS services in the future. The researchers do not anticipate that there are any risks in taking part. However, as standard practice, the university sponsoring the research has insurance arrangements in place to provide for any harm arising from taking part if it were to occur. NHS indemnity operates in respect of the therapy that is provided.

Where is the study run from?
1. Institute of Psychiatry, Psychology & Neuroscience, Kings College London, UK
2. University College London, UK
3. University of Manchester, UK
4. University of Glasgow, UK

When is the study starting and how long is it expected to run for?
December 2019 to October 2023

Who is funding the study?
The Wellcome Trust, UK

Who is the main contact?
Dr Clementine Edwards
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Study website
http://www.avatartherapytrial.co.uk

Contact information

Type(s)
Public

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Additional identifiers

EudraCT/CTIS number
Nil known

IRAS number
277118

ClinicalTrials.gov number
Nil known

Secondary identifying numbers
IRAS 277118

Study information

Scientific Title
Optimising AVATAR therapy for distressing voices: study protocol for the AVATAR2 multi-centre randomised controlled trial

Acronym
AVATAR2

Study objectives
Current hypothesis as of 19/11/2020:
1. AVATAR-brief will be more effective in reducing voice-related distress, total voice severity and voice frequency than TAU at post-treatment (16 weeks) and follow up (28 weeks)
2. AVATAR-extended will be more effective in reducing voice-related distress, total voice severity and voice frequency than TAU, at post-treatment (16 weeks) and follow up (28 weeks)
3. AVATAR-extended will reduce perceived omnipotence and malevolence (BAVQ-R) compared to TAU and these improvements will mediate change in the primary outcome.
4. In both AVATAR-brief and AVATAR-extended treatment effects on the primary outcome will be mediated by anxiety reduction, as measured by Experience Sampling Methodology (ESM) in daily life.
5. Greater baseline complexity of voice characterisation will moderate the treatment effects of AVATAR-brief and AVATAR-extended compared to TAU. Other clinical characteristics will be explored as potential moderators.
6. AVATAR-brief and AVATAR-extended will both have favourable incremental cost-effectiveness ratios compared to routine care.

Previous hypothesis from 30/09/2020 to 19/11/2020:
1. Extended AVATAR therapy at a will be more effective in reducing voice-related distress and voice frequency than Treatment As Usual (TAU) post-treatment (16 weeks) and at follow up (28 weeks)
2. Brief AVATAR therapy will be more effective in reducing voice-related distress and voice frequency than TAU, post-treatment (16 weeks) and at follow up (28 weeks)
3. AVATAR therapy (brief and extended) will reduce anxiety related to voices, and improvements in outcome are mediated by anxiety reduction
4. Extended AVATAR therapy will change the voice hearer's relationship with the voice (as measured by the Experience Sampling Methodology (ESM) Questionnaire and the Voice Action and Acceptance scale (VAAS) and changes in this relationship will mediate outcome
5. Greater baseline complexity of voice characterisation will moderate the effects of brief andextended AVATAR therapy compared to TAU
6. PTSD symptomatology and/or perceived links between experiences of trauma and voices will moderate outcome
7. Brief and extended AVATAR therapy will both have favourable incremental cost-effectiveness ratios compared to routine care.

Original hypothesis:
1. AVATAR therapy at a high-intensity level will be more effective in reducing voice-related distress and voice frequency than Treatment As Usual (TAU) post-treatment (16 weeks) and at follow up (28 weeks)
2. AVATAR therapy at a low-intensity level will be more effective in reducing voice-related distress and voice frequency than TAU, post-treatment (16 weeks) and at follow up (28 weeks)
3. AVATAR therapy (both levels) will reduce anxiety related to voices, and improvements in outcome are mediated by anxiety reduction
4. High intensity AVATAR therapy will change the voice hearer's relationship with the voice (as measured by the Experience Sampling Methodology (ESM) Questionnaire and the Voice Action and Acceptance scale (VAAS) and changes in this relationship will mediate outcome
5. Greater baseline complexity of voice characterisation will moderate the effects of high and low-intensity AVATAR therapy compared to TAU
6. PTSD symptomatology and/or perceived links between experiences of trauma and voices will moderate outcome
7. Both levels of AVATAR will have favourable incremental cost-effectiveness ratios compared to routine care

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 10/06/2020, London - Camberwell and St Giles Research Ethics Committee (Level 3, Block
B, Whitefriars, Lewins Mead, Bristol, BS1 2NT; +44 (0)207 104810; camberwellstgiles.rec@hra.nhs.uk), ref: 20/LO/0657

Study design
Multicentre three-arm single-blinded randomized controlled trial

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Hospital

Study type(s)
Treatment

Participant information sheet
Not available in web format, please use the contact details to request a participant information sheet

Health condition(s) or problem(s) studied
People with schizophrenia spectrum disorder or affective disorder with psychotic symptoms who have been experiencing distressing voices for longer than 6 months

Interventions
Current intervention as of 30/09/2020:
People will be randomised to receive brief or extended AVATAR therapy added to Treatment As Usual (TAU) compared to TAU alone. Independent randomisation (King's Clinical Trials Unit) will use randomly varying permuted blocks, stratified by site and baseline complexity of voice entity characterisation.

AVATAR Therapy is a computer-assisted treatment of auditory hallucinations in people with a diagnosis of psychosis (e.g. schizophrenia). The therapy involves a three-way conversation between therapist, patient and a digital simulation ('avatar') of one of his/her hallucinated voices. The therapist, sitting in a room remotely from the patient, speaks either as him/herself or in his/her digitally transformed voice as the avatar. The patient sits in front of a monitor on which the avatar appears. The avatar changes over time to be less intimidating and persecutory in response to changes in the participant's responses, guided by the therapist. The voice-hearer is supported throughout by the therapist who, while physically located in another room, uses visual (webcam) and audio feedback to adjust the dialogue to ensure optimal engagement.

The AVATAR therapy will be delivered for two different periods of time (one in each arm of the trial) – brief and extended. The brief AVATAR therapy will be delivered over 6 sessions and will focus on exposure to the avatar speaking aloud verbatim voice content while the therapist supports the person to adopt an assertive role and stand up to the avatar. The extended AVATAR therapy will incorporate this exposure phase but be extended to 12 sessions. The additional sessions will comprise of increasingly elaborated dialog based on a formulation that takes account of the person's beliefs about the identity, power and malevolence of the voices and of what might persuade the avatar to take a more conciliatory and accepting view of the person.

During the trial, therapy will be delivered by trained and experienced therapists, with expertise in working with this client group, who will attend peer supervision with the project team for the duration of the studies. The therapy will not interfere with the usual care offered through mental health services and no attempt to control the delivery of other services to either group will be made.

Duration of treatment and follow-up:
In the brief arm participants will receive 6 sessions (over 12 weeks) of AVATAR therapy, in the extended arm participants will receive 12 sessions (over 16 weeks) of AVATAR therapy. Follow-up assessments will be conducted at 16 weeks and 28 weeks, there are no follow up therapy sessions.

Previous intervention:
People will be randomised to receive AVATAR therapy at high- or low-intensity added to Treatment As Usual (TAU) compared to TAU alone. Independent randomisation (King's Clinical Trials Unit) will use randomly varying permuted blocks, stratified by site and baseline complexity of voice entity characterisation.

AVATAR Therapy is a computer-assisted treatment of auditory hallucinations in people with a diagnosis of psychosis (e.g. schizophrenia). The therapy involves a three-way conversation between therapist, patient and a digital simulation ('avatar') of one of his/her hallucinated voices. The therapist, sitting in a room remotely from the patient, speaks either as him/herself or in his/her digitally transformed voice as the avatar. The patient sits in front of a monitor on which the avatar appears. The avatar changes over time to be less intimidating and persecutory in response to changes in the participant's responses, guided by the therapist. The voice-hearer is supported throughout by the therapist who, while physically located in another room, uses visual (webcam) and audio feedback to adjust the dialogue to ensure optimal engagement.
The AVATAR therapy will be delivered at two levels (one in each arm of the trial) – low intensity and high intensity. The low-intensity AVATAR therapy will be delivered over 6 sessions and will focus on exposure to the avatar speaking aloud verbatim voice content while the therapist supports the person to adopt an assertive role and stand up to the avatar. The high-intensity AVATAR therapy will incorporate this exposure phase but be extended to 12 sessions. The additional sessions will comprise of increasingly elaborated dialog based on a formulation that takes account of the person's beliefs about the identity, power and malevolence of the voices and of what might persuade the avatar to take a more conciliatory and accepting view of the person.

During the trial, therapy will be delivered by trained and experienced therapists, with expertise in working with this client group, who will attend peer supervision with the project team for the duration of the studies. The therapy will not interfere with the usual care offered through mental health services and no attempt to control the delivery of other services to either group will be made.

Duration of treatment and follow-up:
In the low-intensity arm participants will receive 6 sessions (over 12 weeks) of AVATAR therapy, in the high-intensity arm participants will receive 12 sessions (over 16 weeks) of AVATAR therapy. Follow-up assessments will be conducted at 16 weeks and 28 weeks, there are no follow up therapy sessions.

Intervention Type
Device

Phase
Phase II/III

Drug/device/biological/vaccine name(s)
AVATAR software

Primary outcome measure
Distress associated with voices as measured by the Psychotic Symptoms Rating Scale- Auditory Hallucinations at 16 and 28 weeks

Secondary outcome measures
Current secondary outcome measures as of 19/11/2020:
1. Frequency of voices and overall severity as measured by the Psychotic Symptoms Rating Scale - Auditory Hallucinations frequency dimension and total score at baseline, 16 and 28 weeks
2. Remission of voices (standalone item) at baseline,16 and 28 weeks
3. Beliefs about Voices Revised (BAVQ-R) at baseline, 16 and 28 weeks
4. Voices acceptance and action scale (VAAS) at baseline, 16 and 28 weeks
5. First item from the Voice Power Differential Scale at baseline, 16 and 28 weeks
6. In daily life, occurrence of voices, associated distress and anxiety, using Experience Sampling Method at quasi-random occasions during the waking day over a 7-day period at baseline, 16 and 28-week assessment points
7. Wellbeing and patient-led outcome measures i.e. Warwick-Edinburgh Mental Well-being Scale, Choice of Outcome in CBT for Psychoses (CHOICE) at baseline, 16 and 28 weeks
8. Clinical characteristics and hypothesised sources of moderation of effects i.e. mood (Beck Depression Inventory), anxiety (DASS-21), delusions (PSYRATS), trauma (e.g. International Trauma Questionnaire and negative symptoms (Clinical Assessment Interview for Negative Symptoms) at baseline, 16 and 28 weeks

Previous secondary outcome measures:
1. Frequency of voices as measured by the Psychotic Symptoms Rating Scale - Auditory Hallucinations at baseline, 16 and 28 weeks
2. Remission of voices (standalone item) at baseline,16 and 28 weeks
3. Beliefs about Voices Revised (BAVQ-R) at baseline, 16 and 28 weeks
4. Voices acceptance and action scale (VAAS) at baseline, 16 and 28 weeks
5. First item from the Voice Power Differential Scale at baseline, 16 and 28 weeks
6. In daily life, occurrence of voices, associated distress and anxiety, using Experience Sampling Method at quasi-random occasions during the waking day over a 7-day period at baseline, 16 and 28-week assessment points
7. Wellbeing and patient-led outcome measures i.e. Warwick-Edinburgh Mental Well-being Scale, Choice of Outcome in CBT for Psychoses (CHOICE) at baseline, 16 and 28 weeks
8. Clinical characteristics and hypothesised sources of moderation of effects i.e. mood (Beck Depression Inventory), anxiety (DASS-21), delusions (PSYRATS), trauma (e.g. International Trauma Questionnaire and negative symptoms (Clinical Assessment Interview for Negative Symptoms) at baseline, 16 and 28 weeks

Overall study start date
01/12/2019

Completion date
31/10/2023

Eligibility

Key inclusion criteria
1. Aged 18+ years
2. Currently under the care of a specialist mental health team (inpatient and outpatient settings)
3. Have current frequent and distressing voices, (as measured by a score of at least 2 on the sum

of the intensity of distress and frequency items of the PSYRATS (Voices) scale), persisting for at least 6 months and in a language spoken by the therapist
4. Speak and read English to a sufficient level to provide consent and complete the assessment procedures
5. A clinical diagnosis of Schizophrenia spectrum disorder (ICD10 F20-29) or affective disorder with psychotic symptoms (ICD-10 F30–39, subcategories with psychotic symptoms)- as determined by clinical records

Participant type(s)
Patient

Age group
Adult

Lower age limit
18 Years

Sex
Both

Target number of participants
345

Total final enrolment
345

Key exclusion criteria
1. Primary diagnosis of substance disorder, personality disorder or learning disability
2. Lacking capacity to consent
3. Profound visual/hearing impairment or insufficient comprehension of English to be able to engage in assessment or therapy
4. Currently undertaking individual psychological therapy for voices
5. Currently experiencing an acute mental health crisis

Date of first enrolment
01/01/2021

Date of final enrolment
30/11/2022

Locations

Countries of recruitment
England

Scotland

United Kingdom

Study participating centre
Kings College London
Institute of Psychiatry, Psychology & Neuroscience
De Crespigny Park
London
United Kingdom
SE5 8AF

Study participating centre
University College London
1-19 Torrington Place
London
United Kingdom
WC1E 7HB

Study participating centre
University of Manchester
Zochonis Building
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United Kingdom
M13 9GB

Study participating centre
University of Glasgow
Gartnavel Royal Hospital
Glasgow
United Kingdom
G12 0XH

Sponsor information

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Sponsor details
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SE1 8WA

+44 (0)2078483224
reza.razavi@kcl.ac.uk

Sponsor type
University/education

Website
http://www.kcl.ac.uk/index.aspx

ROR
https://ror.org/0220mzb33

Organisation
South London and Maudsley NHS Foundation Trust

Sponsor details
R&D Department
Institute of Psychiatry, Psychology & Neuroscience
King's College London
Denmark Hill Campus
16 De Crespigny Park
London
United Kingdom
SE5 8AF
+44 (0)2078480339
slam-ioppn.research@kcl.ac.uk

Sponsor type
Hospital/treatment centre

Website
http://www.slam.nhs.uk/

ROR
https://ror.org/015803449

Funder(s)

Funder type
Charity

Funder Name
Wellcome Trust

Alternative Name(s)

Funding Body Type
Private sector organisation

Funding Body Subtype
International organizations

Location
United Kingdom

Results and Publications

Publication and dissemination plan
It is intended that the results of the study will be reported and disseminated at international conferences and in peer-reviewed scientific journals and will be made available to participants and clinical teams in an accessible format and on the study website. It will also be accessible in print and digital media and presented at stakeholder's events.

Intention to publish date
31/10/2024

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request. Following publication of the main trial paper the anonymised datasets will be available upon receipt of a reasonable request from Professor Philippa Garety (Principal Investigator) – philippa.garety@kcl.ac.uk

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol article		25/05/2021	27/05/2021	Yes	No
HRA research summary			28/06/2023	No	No
Statistical Analysis Plan	version 1.1	11/05/2023	26/07/2023	No	No
Results article		28/10/2024	30/10/2024	Yes	No