AVATAR therapy for auditory verbal hallucinations in psychosis

TIMEFRAME: Estimated earliest commercial availability in the UK

Currently unclear  Now  6 months  1 year  18 months  2 years  Over 2 years

TECHNOLOGY

The AVATAR (Audio Visual Assisted Therapy Aid for Refractory auditory hallucinations) therapy is a computer-based intervention which has been developed by UCL (University College London) to reduce the frequency and severity of auditory verbal hallucinations in patients with psychotic illnesses such as schizophrenia.

The AVATAR therapy uses a virtual reality platform to enable patients to create an “avatar” (human or non-human) of the hallucination. Patients choose a face and a voice that resembles the hallucination they hear. The voice is selected from a range of voices produced by morphing the therapist’s voice into a variety of forms and the avatar’s lip movements are synchronised with its speech. Once constructed, the avatar is presented within the virtual reality and a trialogue between the patient, the avatar and the therapist can be set-up. The patient sits in a room and faces a monitor on which their avatar is shown. The therapist sits in an adjacent room and views a screen. Clicking on the right side of the screen allows the therapist to speak to the patient through the avatar using the morphed voice. Clicking on the left side of the screen enables the therapist to speak to the patient in their normal voice. The patient is prompted by the therapist to enter into a dialogue with their avatar and encouraged to oppose it. The therapist controls the avatar so that it progressively comes under the patient’s control over the course of the treatment.

The technology requires standard IT equipment. It is intended as a treatment option for adults that retain auditory hallucinations despite treatment with antipsychotic medication. The therapy is administered over a six to eight weeks course of 45 minute sessions. Therapy is further reinforced with recordings of sessions being made available to the patient to allow them to listen to the sessions at any time.

The company anticipate the AVATAR therapy to be CE marked in 2016, with UK launch in 2017. The company plan to expand availability of the therapy to adolescents and children on
Antipsychotic medication.

**POTENTIAL FOR IMPACT**

Auditory verbal hallucinations are false perceptions of sound and are a common occurrence in psychotic disorders such as schizophrenia, where patients may complain of hearing one or more talking voices. Treatment for psychotic disorders involves using a combination of antipsychotic medication, psychological therapies and social support. Some patients who experience auditory verbal hallucinations fail to respond to antipsychotic medication, with a severe impairment to their quality of life.

The company claim the AVATAR therapy builds on existing evidence-based psychological therapies for psychosis (such as cognitive behavioural therapy). The AVATAR therapy aims to give the patient greater power and control over the voice-hearing experience. A key innovative feature of the therapy is the option to construct an avatar that resembles the patient’s hallucination and the capability to synchronise the voice to the avatar’s lip movements. The user interface has been designed with direct involvement of clinicians and patients.

According to the company, benefits for patients include a reduction in the frequency and severity of auditory verbal hallucinations, leading to increased ability to function in everyday life. The duration of the therapy is also shorter than the standard of 12-18 months on cognitive therapy. The company are currently undertaking a clinical trial to further assess the AVATAR therapy for health benefits and user acceptability.

If clinical and cost effectiveness can be demonstrated, the AVATAR therapy may provide an additional treatment option for patients experiencing auditory verbal hallucinations as a consequence of psychosis.

The AVATAR therapy is predicted to have an impact on the following domain of the NHS Outcomes Framework (www.england.nhs.uk/resources/resources-for-ccgs/out-frwrk):

Domain 2 Enhancing quality of life for people with long-term conditions.

**EVIDENCE**

**PUBLISHED PAPERS AND ABSTRACTS**


Lay summary

The AVATAR therapy is a computer programme that treats patients who can hear voices in their head as a result of conditions like schizophrenia. The AVATAR therapy allows the patient to create an avatar - a computerised image of the person whose voice they can hear in their head. The patient can then speak to the avatar, with the help of a therapist. The AVATAR therapy may help patients to re-gain control of their thoughts and lessen the voices that they hear in their head.