

## Use of Virtual Reality in the Treatment and Assessment of Psychotic Disorders

### S0031

#### CHALLENGE and Face Your Fears: Virtual Reality Treatment for Auditory Hallucinations and Paranoid Ideations

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**Background:** Many patients suffering from schizophrenia spectrum disorders continue having distressing auditory hallucinations and paranoid ideations despite receiving current treatment. Virtual reality assisted treatment offers the potential of advancing current psychotherapies for psychotic symptoms by creating virtual environments that can elicit responses (e.g. thoughts, feelings, behaviours) mirroring real-world settings. In two large-scale randomised clinical trials, we are investigating whether targeted virtual reality assisted psychotherapy can reduce psychotic symptoms and increase daily life functioning and quality of life. The CHALLENGE trial examines whether nine sessions of virtual reality-assisted psychotherapy is superior to nine sessions of standard treatments in reducing the severity, frequency, and distress of auditory hallucinations in patients with psychosis. In the Face your Fears trial we are investigating whether virtual reality assisted cognitive behavioral therapy (CBT) is superior to standard CBT in reducing levels of paranoid ideation in patients with psychosis spectrum disorders. **Methods:** The CHALLENGE and Face your Fears trials are randomised, assessor-blinded parallel-groups superiority clinical trials, allocating a total of 266 and 256 patients, respectively to either the experimental intervention or a control condition. The trials are currently enrolling patients; thus, no quantitative data is available yet. The main objective of this presentation is to give a qualitative account of this new psychotherapeutic methods as it is applied in both trials. **Results:** Qualitative data comprising case descriptions and video material will be presented at the conference. **Discussion:** The preliminary findings indicate great potential for these innovative treatments albeit important concerns regarding implementation will be raised.

**Disclosure:** No significant relationships.

**Keywords:** auditory hallucinations; schizophrenia; Psychotherapy; virtual reality

### S0030

#### Fears, Fun and Voices – an update on VR Treatments for Psychosis

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**Background:** Virtual Reality (VR) is increasingly used for treatment of psychiatric disorders. With immersive VR, people can be gradually exposed to situations they fear, they can practice new behaviour in a safe and controlled way. The threshold for engaging in therapy is lower in VR than in real life. VR applications for psychosis have been introduced fifteen years ago, and are rapidly expanding. **Methods:** In our VR mental health lab, several VR therapies for psychotic disorders have been developed and investigated. Results of recent randomized controlled trials (RCT) will be presented, and ongoing and future projects will be discussed, including VR cognitive behavioral therapy (VRcvt) for paranoid delusions, social cognition training, stress management and avatar therapy for auditory hallucinations **Results:** The RCT of VRcvt for paranoid delusions (N=116) had strong and statistically significant effects on paranoid ideations, anxiety and safety behavior. Facial emotion recognition was improved by VR social cognition training (RCT N=81), but other domains of social cognition proved more difficult to improve. A VR relaxation tool (RCT N=50) had strong immediate effects on perceived stress and emotional states. Ongoing VR intervention studies are a modular VR intervention aimed at improving social functioning (VR SOAP) and an empowering intervention for patients with auditory hallucinations (VR VOICES). **Discussion:** VR is a powerful tool for treatment of psychotic disorders, offering interventions for multiple symptom domains and functioning. Next generation VR studies hold the promise to expand and substantially improve psychosocial treatment of psychotic disorders.

**Disclosure:** I am co-founder and have shares of VRelax, a company providing VR relaxation software.

**Keywords:** paranoid delusions; Psychosis; hallucinations; virtual reality

### S0031

#### The UK AVATAR 1 and 2 Trials for People with Distressing Voices – Findings and Learning from AVATAR1, and AVATAR2 Developments in Theory and Therapy.

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**Introduction:** Many people suffering from psychotic disorders report persistent auditory verbal hallucinations ('voices') despite pharmacological and psychological therapy. Interest is growing in approaches that emphasise the personal relationship between the patient and their voice(s). AVATAR therapy is one such approach that uses a digital representation (avatar) of a selected voice to facilitate a three-way discussion between patient, therapist and voice, the therapist speaking either as him/herself or in the digitally transformed voice of the avatar. **Objectives:** To describe AVATAR therapy and an ongoing multi-centre clinical trial. **Methods:** Encouraging findings from an earlier controlled trial (AVATAR1) comparing AVATAR therapy and supportive counselling informed our current multi-site cost-effectiveness trial of brief and extended versions of the therapy compared to treatment as usual (AVATAR2). **Results:** AVATAR1 delivered in 7 weekly sessions resulted in a reduction in the frequency, distress and power of voices that was significantly superior to supportive counselling. Clinical experience suggested that some participants improved in response to the early focus on anxiety while others seemed more responsive to later more formulation-driven approach. These findings led us to the current ongoing three arm clinical trial comprising a brief (6 session) focus on anxiety/assertiveness, an extended (12 session) formulation-driven approach both approaches compared to treatment as usual. **Conclusion:** Previous AVATAR studies suggest this is a therapy with considerable promise. It can be delivered through widely available laptop computers, usually in clinic but also remotely via existing commercial platforms. The current trial will address questions about dissemination, training and cost-effectiveness in NHS settings.

**Disclosure:** The digital technology employed in AVATAR therapy is provided by licence for the trial from Avatar Therapy Ltd

**Keywords:** Auditory Verbal Hallucinations; Psychological therapy; Psychosis; clinical trial

## First-Episode Psychosis Care Delivery in Central Europe: Treatment Issues, Research, and Education

### S0032

#### First-Episode Psychosis care in Central Europe: What we have learned and what we still need to do

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First Episode Psychosis (FEP) treatment is a critical element of mental health-care systems, which has been shown to improve outcomes in this patient group. Due to divergent historical and political trajectories, countries of Central and Eastern Europe have taken a different course in the development of mental health-care. Among these differences is the less advanced level of present FEP treatment networks. Traditionally mental health-care is more

inpatient based in these countries, with a lesser emphasis on specialized outpatient services, and early intervention programmes have been only launched during the last 15 years. Despite the lag of the development of FEP services, a variety of models has been already started in our countries. In my lecture I will review the literature about the Central and Eastern European region. I will also present good practices of how the existing early intervention programmes can be integrated into the traditional mental health-care systems.

**Disclosure:** No significant relationships.

**Keywords:** early intervention; First Episode Psychosis; Central and Eastern Europe

### S0033

#### The Development of a Complex FEP Program at Semmelweis University

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**Introduction** First episode psychosis (FEP) programs target the first 3-5 years after the first manifestation of a psychotic episode. Although follow-up results after 10-15 years are mixed, reported results of the first 5-10 years are promising in improving relapse prevention, functional outcomes and reducing mental health care costs, compared to treatment as usual. **Objectives** Our objective was to develop the first complex FEP program in Hungary. **Methods** Male and female inpatients, (age:17-40years), hospitalized due to a first psychotic episode and consenting to participate, were included, since 2019 October. Drug induced psychosis and organic background in the etiology of the psychotic episode were excluded. Duration of the program is 2-3 years, based on the individual needs of the patients. The program provides detailed clinical and neuropsychological examinations, MRI, pharmacotherapy, various psychosocial interventions, and support group for relatives. **Results** Twenty-eight patients [15 male, 13 female, mean age=22,4 (18-40) years] were included. The program has been repeatedly limited by COVID-19 pandemic. Psychiatric control, pharmacotherapy, psychoeducation and supportive therapy, however could be continuously provided via telepsychiatry, even during the lockdown. During the first 2 years, 90% of the patients remained in treatment, showed good compliance with pharmacotherapy; 10% of the patients were rehospitalized due to relapse. In the presentation, besides clinical experiences, preliminary clinical outcome data will also be presented. **Conclusions** The first complex FEP program in Hungary, although limited repeatedly by the pandemic, show promising clinical results with low relapse rates and high level of adherence to therapy in the first 2 years after a first psychotic episode.

**Disclosure:** No significant relationships.

**Keywords:** First Episode Psychosis; schizophrenia; therapy