

depression. Further studies with the same methodology that examines and separates central and peripheral olfactory processing are needed. Another review showed robust olfactory deficits in schizophrenia and at-risk youths, what indicates that olfactory measures may be a useful marker of schizophrenia risk status. Finally, a systematic review compared olfactory function in FTD, depression, schizophrenia and bipolar disorder. Results revealed that odor identification but not discrimination was severely impaired in FTD, both were impaired in schizophrenia, while no olfactory impairments were observed in depression. Findings in bipolar disorder were mixed. This review showed that testing odor identification and discrimination differentiates FTD from depression and schizophrenia, but not from bipolar disorder. It is possible to conclude that olfactory dysfunction occurs in schizophrenia and dementia but not in depression.

#### **540 - COGNITIVE STIMULATION THROUGH OROICOGNITIVE, A VIRTUAL REALITY APP FOR OLDER PEOPLE**

Adriana Gómez, Janeth Carreño, Alvaro Berroa, Ane Balenciaga

##### **OBJECTIVE:**

To analyze the effectiveness of cognitive stimulation carried out through OroiCognitive, a virtual reality app, in older people, as well as its acceptance and attractiveness to them.

##### **METHOD:**

The research was carried out with 31 participants with a number two or three in the global deterioration scale (GDS).

15 of these participants were part of the control group, and 16 of the experimental group.

The intervention through virtual reality, with exercises more similar to daily activities, allows working on attention, language, memory, orientation, visuospatial skills and executive functions.

It was carried out in 12 sessions, 3 times a week, lasting 25 minutes each one, individually.

Both groups were evaluated using the MINI-MENTAL Cognitive Examination and some subtest of the Wechsler Intelligence Scale for adults (WAIS-IV).

##### **RESULTS:**

Regarding to the effectiveness of the stimulation, the results show significant improvements in vocabulary and information in those with GDS2, in the experimental group.

No statistically significant improvements were found in the rest of the areas. Regarding the assessment of the tool, 69% of the participants rated it as quite useful and interesting. According to the qualitative data collected by the therapists, the users were happier and more animated during and after the intervention.

#### **541 - MRI-BASED MEASUREMENT OF HIPPOCAMPAL VOLUME IN PATIENTS WITH DEMENTIA**

Dr. Supriya Satapathy, M.D, Consultant Psychiatrist, Brain Mind Behavior Neurosciences Research Institute, Visakhapatnam, Andhra Pradesh, India.

Dr. D. Phani Bhushan, M.D, D.P.M., Professor & Head, Department of Psychiatry

Dr. T. Nageshwar Rao, M.D., Professor, Department of Radio-diagnosis

Dr. M. Satyanarayana, M.D., D.M., Assistant Professor, Interventional Neuroradiologist

##### **Background:**

- Dementia due to probable Alzheimer's disease (AD) represents between 60 and 80% of all dementias. The total number of estimated AD cases worldwide by 2030 is 65.7 million and 115.4 million by 2050; this represents a twofold population increase in the next 20 years.
- Magnetic resonance imaging (MRI) has been the primary tool of interest to link hippocampal volume loss with dementia firmly.

- MRI-based volumetry has been proposed as a promising biomarker.
- Hippocampal volumetry is useful in discriminating not only cognitively normal individuals from those with dementia but can also differentiate Mild Cognitive Impairment (MCI) from various types of dementia.

#### Research Objective:

1. To measure hippocampal volume in various types of dementia. (MMSE) and Activities of daily living (ADL) in patients with dementia.

#### Method:

A cross-sectional study conducted for period of one year among 21 patients with Alzheimer's, vascular dementia, amnesic mild cognitive impairment and 20 healthy age matched controls. MMSE scale was used to stratify patients on cognitive function impairments. ADL scale to assess functional status of the patient ability to perform activities of daily living independently in diverse settings. Hippocampal volume measured using MRI 1.5 T Philips Ingenia, a coronal T1-weighted FFE (Fast Field Echo) 3D sequence.

#### Results:

Total Hippocampal volume was reduced by 35% in Alzheimer's disease, 27% in vascular dementia and 10% in amnesic mild cognitive impairment, compared with control group.

#### Conclusion:

Moderate positive correlation between mean total hippocampal volume and MMSE scores in patients with dementia which was statistically significant. (P value= 0.001).

## 542 - Development and validation of the narcissistic personality screening questionnaire (NPSQ) among Thai older adults

Pitchapat Chinnarasri, Tinakon Wongpakaran, Nahathai Wongpakaran\*  
Department of Psychiatry, Faculty of Medicine, Chiang Mai University, Thailand

### Background

A screening tool for narcissistic personality disorder (NPD) in older adults is lacking.

### Objective

The study aimed to develop a screening tool for detecting symptoms of the NPD and to validate its psychometric properties in older adults.

### Methods

This Narcissistic Personality Screening Questionnaire (NPSQ) was developed by constructing items based on DSM-5 criteria of the narcissistic personality disorder (NPD). A literature review regarding the signs and symptoms of NPD was conducted. Interview with NPD patients, the patients' key informants, and a focus group discussion among psychiatrists, psychiatric nurses and psychiatry residents who have experience in working with patients with NPD were performed. After the items were created, the content validity index (CVI) by 1 psychologist and 1 psychiatrist was analyzed. A field trial was conducted among older adult patients visiting the psychiatry and the cardiology departments at Maharaj Nakorn Chiang Mai hospital between March and April 2021. The internal consistency using Cronbach alpha was analyzed. Item hierarchy, item difficulty, and item fit was also calculated using Rasch analysis. Qualitative information was analyzed regarding language use and time to complete the test.