

### 538 - Approach to Understanding the 'Meaning' of Behaviors in NCD: Beyond PIECES and GPA. Luthra's Behavioral Assessment and Intervention Response Paradigm (LuBAIR™ Paradigm). Dr.

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#### **ABSTRACT**

**Background:** With the incidence, prevalence, and cost of dementia care expected to rise, it has become crucial to develop a practical approach for managing behaviors in dementia. Presently non-pharmacological interventions, both interpersonal and environmental, are the gold standard for managing Behavioral and Psychological Symptoms of Dementia (BPSD). The purpose of the presentation is to reveal the reasons for paucity in developing effective pharmacological treatments for BPSD in moderate to advanced dementia and propose a new theoretical framework for labeling and classifying behaviors in moderate to advanced dementia. The LuBAIR paradigm will be less labor-intensive, more comprehensive, and improve the categorization of behaviors into clinically meaningful categories. It was also found that the LuBAIR Inventory has comparable inter-and intra-rater reliability and Construct and Criteria validity in comparison to BEHAV-AD and Cohen-Mansfield Agitation Inventory (CMAI).

**Methods:** The literature on BPSD reviewed, focusing on terminology, models of behaviors, and identified deficiencies in both.

**Results:** Terminology to describe moderate to advanced dementia behaviors lacks consistency, accuracy, and reliability in both research and clinical settings. Standardized scales currently utilized to diagnose clinical conditions also lack validity and reliability in moderate to advanced dementia. Models for understanding the occurrence of behaviors in dementia are dichotomized along the biological versus psychosocial paradigm. The reliability and validity of the LuBAIR Inventory were established in an earlier study and workshops, where it found that the LuBAIR was less labor-intensive, more comprehensive, and offered improved categorization of behaviors into clinically meaningful categories. It was also found that the LuBAIR Inventory has comparable inter-and intra-rater reliability and Construct and Criteria validity in comparison to BEHAV-AD and Cohen-Mansfield Agitation Inventory (CMAI).

**Conclusions:** Deficiencies in existing terminology, assessment scales, and models are acknowledged. There are twelve newly formed behavioral categories to classify behaviors in moderate to advanced Dementia. These categories were used to develop a new behavioral assessment inventory titled LuBAIR (Luthra's Behavioral Assessment and Intervention Response). The LuBAIR model will help clinical staff to understand the 'meaning' of behaviors in persons with Dementia (PwD).

**Keywords:** Dementia, Behavioral Symptoms, Classification, Stage Congruent Response Behaviors, Biological Factors, Personal Factors, Environmental Factors

### 539 - The association between olfactory dysfunction and psychiatric disorders

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It is known that olfactory dysfunction occurs early in neurodegenerative diseases, such as Alzheimer's and Parkinson's diseases and frontotemporal dementia (FTD). Dementia and psychiatric disorders share a number of clinical features, such as psychosis and depression. As such, misdiagnoses across these conditions are not uncommon. A variety of studies show smell dysfunction in schizophrenia, but little is known about other psychiatric disorders. In order to verify the link between olfaction and psychiatric disorders, a medical literature search was carried out in May 2021 using PubMed, and Cochrane Library, including the terms "olfaction" and "olfactory dysfunction" combined individually with "psychiatric disorder" and "depression". Systematic reviews and meta-analyses written in English from 1991 to 2021 were included. Even though one review suggested that patients with depression have reduced olfactory performance when compared with healthy, results show studies with different methodology and design which makes it difficult to reach definitive conclusions as how and if olfactory functioning is related to

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**

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##### **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**

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##### **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.