

**Methods:** We included 64  $\beta$ -amyloid positive aMCI participants and 50 CN older adults from the Czech Brain Aging Study. The participants underwent neurological, comprehensive neuropsychological examination, APOE and BDNF genotyping, and magnetic resonance imaging. MBI was diagnosed with the Mild behavioral impairment checklist (MBI-C) developed for MBI case detection, and the diagnosis was based on the MBI-C total score  $\geq 7$ . Additionally, self-report instruments for anxiety (the Beck Anxiety Inventory) and depressive symptoms (the Geriatric Depression Scale-15) were administered. The participants were stratified based on the presence of at least one risk allele in genes for APOE (i.e., e4 carriers and non-carriers) and BDNF (i.e., Met carriers and non-carriers). We used linear regressions to examine the between-group differences.

**Results:** MBI symptoms (MBI-C total score  $\geq 1$ ) were present in 28% CN and 83% aMCI. Almost half (48.4%) of the aMCI individuals met the criteria for the MBI syndrome. Compared to the CN, the aMCI group displayed more affective, apathy, and impulse dyscontrol symptoms ( $p < 0.001$ ) but not social inappropriateness or psychotic symptoms. Furthermore, aMCI participants reported more depressive ( $p < 0.01$ ) but similar anxiety symptoms to CN on self-report measures. Within the aMCI group, APOE e4 and BDNF Met carriers did not differ from non-carriers in the severity of NPS in either instrument. However, the results suggested that an interaction between these polymorphisms influenced self-reported anxiety ( $p = 0.034$ ), with Met carriers/e4 non-carriers reporting the highest anxiety levels.

**Conclusion:** MBI is frequent in prodromal Alzheimer's disease and characterized by affective, apathy, and impulse dyscontrol symptoms. APOE and BDNF risk genetic polymorphisms did not influence the NPS severity when considered separately; however, their interaction might influence anxiety, which warrants further investigation.

The research has received funding from the EEA/ Norway Grants 2014-2021 and the Technology Agency of the Czech Republic – project number TO01000215, Ministry of Health of the Czech Republic, grant no. 19-04-00560, National Institute for Neurological Research (Programme EXCELES, ID Project No. LX22NPO5107) - funded by the European Union – Next Generation EU and GAČR 22-33968S.

### **Mild Behavioral impairment (MBI) and late-life psychiatric disorders: Differential clinical features and outcomes.**

**Authors:** Camilla Elefante<sup>1</sup>, Giulio Emilio Brancati<sup>1</sup>, Filippo Baldacci<sup>2</sup>, Lorenzo Lattanzi<sup>1</sup>, Roberto Ceravolo<sup>2</sup>, Giulio Perugi<sup>1</sup>

#### **Affiliation**

<sup>1</sup> University of Pisa, Department of Clinical and Experimental Medicine - Psychiatry Unit, Pisa, Italy

<sup>2</sup> University of Pisa, Department of Clinical and Experimental Medicine - Neurology Unit, Pisa, Italy

Mild Behavioral Impairment (MBI) refers to a late-onset neurobehavioral syndrome in which neuropsychiatric symptoms (NPS) represent early markers of dementia. Though being a promising diagnostic category for neurobiological research, in daily clinical practice, the boundaries and relationships between MBI and late-life psychiatric disorders are yet to be established. Particularly, no studies have been conducted so far on the prognostic implications of an MBI diagnosis in the psychogeriatric context.

For these reasons, since June 2020, we are conducting a prospective longitudinal study on MBI in psychogeriatric patients. On June 2022, 144 elderly patients ( $\geq 50$  years) referred to the outpatient clinic of the 2nd Psychiatric Unit of the University of Pisa had been recruited. Patients had been diagnosed with a primary psychiatric disorder (N=73, 50.6%), MBI (N=40, 27.8%) or dementia (N=31, 21.5%). Patients with MBI showed a significantly higher age at onset of psychiatric disorders and depressive episodes than patients diagnosed with primary psychiatric disorders. MCI and vascular leukoencephalopathy were also more common in patients with MBI. Moreover, compared to primary

psychiatric disorders, MBI was associated with a significantly higher psychopathology severity, especially in the apathy and negative symptoms domain.

Preliminary longitudinal analyses were also performed on a subsample of 83 patients followed-up for at least 3 months (on average for one year): at baseline 44 patients had been diagnosed with primary mood disorders including 23 patients in remission and 21 patients with current mood episodes; 22 patients had MBI and 17 were diagnosed with dementia. While at follow-up patients with mood episodes showed a significant decrease in psychopathology severity and increase in global functioning, those with MBI had no significant improvements.

In conclusion, MBI is a common condition in psychogeriatric settings and shows distinctive clinical features that may help differential diagnosis. Moreover, the presence of MBI in patients with late-life psychiatric disorders may affect both clinical and functional outcomes. The recognition of patients with MBI symptoms, including apathy, might be useful for the early detection of individuals with poor prognosis.

## **S5: COGNISANCE: Co-Designing Dementia Diagnosis And Post Diagnostic Care**

### *Symposium Overview*

Prof Frans Verhey, Alzheimer Centrum Limburg, Maastricht University  
Prof Henry Brodaty, Professor of Ageing and Mental Health, UNSW SYDNEY

People with dementia can live full and meaningful lives after diagnosis, but still many people with dementia and their family care partners are dissatisfied with the process of getting a diagnosis and may also receive limited, if any, post-diagnostic support. The international COGNISANCE project aims to improve the communication of dementia diagnosis and post-diagnostic support. It is a 3-year project supported by the EU Joint Program for Neurodegenerative Disease Research (JPND), with partners in Australia (lead), Canada, Netherlands, UK, and Poland.

Based on the experiences of people with dementia, family care partners and health care professionals, and in partnership with them, we codesigned a website that provides structured information, resources and tools tailored to empower people with dementia and their family care partners. Effects of the campaign was evaluated using the RE-AIM framework. From our collective experiences, a 'playbook' was produced outlining how to deliver similar campaigns in other countries. Through these activities we aimed to improve health care practitioner's diagnostic habits and provision of support, as well as increase help seeking by people with dementia and care partners.

In this symposium, you will hear about the latest results of four workpackages of this COGNISANCE project:

1. A general overview of the rationale, goals, and design of the project will be presented by the principal investigator
2. Data of a qualitative study will be presented on the experiences of receiving a diagnosis, and the barriers and facilitators towards post-diagnostic support, as well as on the differences and similarities between countries.
3. The development of an online actionable guide Forward with dementia ([www.forwardwithdementia.org](http://www.forwardwithdementia.org)) using a person-centered approach with target audience groups. The aim of this online guide was to support decision making and to help people find their way forward from a diagnosis of dementia.
4. Data will be presented of the evaluation of the implementation and perceived impact of the Forward With Dementia websites and campaign in the five participating countries

### **Co-Designing Dementia Diagnosis And Post Diagnostic Care, The Cognisance Project: Forward with Dementia (FWD)**

COGNISANCE Team\*

Despite many national guidelines for diagnosis and management of dementia, persons diagnosed with dementia and their family carer partners are often dissatisfied with the diagnostic process and receive limited post-diagnostic support.