

research is warranted to better ascertain the cost effectiveness of using these technologies in the non-pharmacological treatment of people with dementia.

## **P192: The Unmet Needs of People with Mild to Moderate Dementia During COVID-19 Pandemic in East Jakarta**

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**Background:** The number of elderly populations continues to increase as the advancement in healthcare grows, which is shown by the increase of life expectancy, the declining mortality rates, and the surge of people with dementia (PWD). This mental health issue is barely identifiable by health workers and the elderly themselves especially during COVID-19 pandemic. Therefore, it is important to evaluate and identify the unmet needs of people with dementia, especially mild to moderate dementia.

**Objective:** To describe the unmet needs of people with mild to moderate dementia during COVID-19 pandemic in 2021 in East Jakarta, Indonesia.

**Methods:** This study is using the CDR (Clinical Dementia Rating Scale) to assess severity level of Dementia, then using the CANE (Camberwell Assessment of Need for the Elderly) instrument to assess the unmet needs of people with mild to moderate dementia.

**Results:** 96 participants were assessed suffer from mild dementia (75%) and moderate dementia (25%). This study procured five substantial unmet needs proportion, which are friendship (26.0%), psychological distress (20.8%), close relationships (19.8%), memory dysfunction (16.7%), and daily activities (10.4%). During interviews in conducting unmet needs assessments, people with mild to moderate dementia and accompanying families expressed their desire for an activity that would be useful to overcome their unmet needs.

**Conclusion:** The COVID-19 pandemic for the people with mild to moderate dementia has an impact on friendships, psychological distress, memory dysfunction and daily activities so they need meaningful activities to overcome them.

## **P199: Cluster analysis dissecting cognitive deficits in older adults with major depressive disorder and the association between neurofilament light chain**

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**Objectives:** Cognitive impairment is a growing problem with increasing burden in ageing global population. Older adults with major depressive disorder (MDD) have higher risk of dementia during ageing. Neurofilament light chain (NfL) has been proven as a potential biomarker related to dementia. The present study aims to assess the cognitive deficits in older adults with MDD and investigate their association with peripheral blood levels of NfL.

**Design:** We enrolled 39 individuals with MDD and 15 individuals with mild neurocognitive disorder or major neurocognitive disorder, Alzheimer's type. Both groups were over age 65 and with restricted Mini-Mental State Examination (MMSE) score. Demographic data, clinical variables, and plasma NfL levels were obtained. We used cluster analysis according to their cognitive profile and estimated the correlation between plasma NfL levels and cognitive impairment in each domain.

**Result:** In the MDD group, participants have higher rate of family psychiatry history and higher rate of current alcohol use habit compared with patients with neurocognitive disorders. In the neurocognitive disorders group, participants showed significantly lower score in total MMSE and higher plasma NfL levels. Part of the MDD patients presented cognitive deficits similar to that of neurocognitive disorders (cluster A). In cluster A, the total MMSE score ( $r=-0.58277$ ,  $p=0.0287$ ) and the comprehension domain ( $r=-0.71717$ ,  $p=0.0039$ ) were negatively correlated to NfL levels after adjusting for age, while the associations had not been observed in the other cluster.

**Conclusion:** We noted the negative correlation between NfL levels and cognitive performance in MDD patients whose cognitive manifestation were more similar to that of degenerative neurocognitive disorders. NfL might be a potential marker to predict patients with MDD to develop cognitive decline especially in domains typically found in Alzheimer's disease. Further longitudinal studies are required to validate our findings for clinical implications.

## **P203: The temporal relationship between dementia and serious traffic accidents: a cohort study of linked national databases.**

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**Objective:** The traffic issues have been attracting global attention due to increased occurrence and higher mortality rate in the older population. Many countries have employed different kinds of regulations on the elder drivers depending either on their age or whether being demented. These policy differences left a research gap to identify the temporal relationship between serious traffic accidents (STA) and dementias, which can inform the most appropriate time for policymaking. In the present study, we linked two national databases and performed analyses to explore this problem.

**Methods:** With the grant and supports from the government, the research team combined the databases of STA registries and the whole population dataset of National Health Insurance Research Database to form a 10-year retrospective cohort for analyses. We performed both retrospective and prospective directions to explore the time length between STAs and the diagnoses of dementia depending on the selection of the STA occurrences and dementia diagnoses as outcomes. In addition to descriptive statistical analyses, we also performed inferential statistics to analyse the variables between different types of STAs. A p-value less than 0.05 was set as statistically significant