## Cognitive performance in older adults from European countries: An epidemiological analysis of Wave 9 SHARE data

## Abstract:

The aging of the European population is a current topic, and it is associated with the issue of cognitive abilities and their decline. This master's thesis focuses on identifying and verifying the risk and protective factors of cognitive performance and comparing their impact between men and women aged 50 and over who participated in the ninth wave of the SHARE project survey. The analyses include a total of 24,258 respondents, of which 9,039 (37.3%) are men and 15,219 (62.7%) are women. Cognitive performance is assessed based on a created *Cognition* indicator, which is derived from the evaluation of five groups of tasks assessing memory, attention, language abilities, and mathematical skills. The results demonstrate significant differences in cognitive functions between genders, with these differences being primarily caused by socioeconomic factors. This suggests that social determinants play an important role in influencing cognitive performance and that they manifest differently in men and women. Hierarchical modeling revealed that geographical location also significantly affects cognitive performance.

**Keywords:** cognition, epidemiology, social inequalities, SHARE survey, linear regression, hierarchical modelling