



## 726 - COGNITIVE FUNCTION AND LUNG FUNCTION, RESPIRATORY MUSCLE STRENGTH AND UPPER LIMB FUNCTIONALITY IN PEOPLE WITH DEMENTIA

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### 726 - COGNITIVE FUNCTION AND LUNG FUNCTION, RESPIRATORY MUSCLE STRENGTH AND UPPER LIMB FUNCTIONALITY IN PEOPLE WITH DEMENTIA

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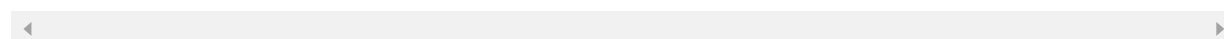
#### Abstract body

**Objectives:** Cognitive decline is a risk factor for lung and functional decline but limited data are available to enlighten this process in people with dementia. This study explored the relationship between cognitive function and lung function, respiratory muscle strength and upper limb functionality in people with dementia.

**Methods:** An exploratory cross-sectional study was conducted. People with dementia were recruited in nursing homes, day care centres, long-term care facilities and in the community. Cognitive function (Addenbrooke's cognitive examination III-ACE-III), lung function (peak expiratory flow-PEF), respiratory muscle strength (maximal inspiratory, expiratory and nasal inspiratory pressures-MIP/MEP/SNIP) and upper limb functionality (Grocery Shelving Task-GST) were assessed. Descriptive statistics was used to characterise the sample. Correlations were explored with the Spearman correlation coefficient.

**Results:** Sixty people with dementia [79.8±8.1 years old; n=45 (75%) female; Body Mass Index=27.5±4.3kg/m<sup>2</sup>] participated in this study. ACE-III was i) low and positively correlated with MIP (r=0.42, p<0.001) and SNIP (r=0.32, p=0.02); ii) moderate and positively correlated with PEF (r=0.50, p<0.001) and MEP (r=0.51, p<0.001); and iii) high and negatively correlated with GST (r=-0.71, p<0.001) (Figure 1).

**Conclusions:** People with dementia with lower cognitive function seem to present worst lung function, respiratory muscle strength and upper limb functionality. Early detection and personalised interventions may prevent clinical and functional decline in this population.



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