Cognitive Performance and Everyday Functionality in Healthy Greek Seniors

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ABSTRACT

Introduction: The examination of seniors’ mental health and ability to live independently gains increasingly attention (European Commission, 2010; Korting, Kramer, Willems, & Leadbeater, 2009; World Economic Forum, 2012). Recent meta-analysis depicts a moderate relation between cognitive performance and everyday functionality (Cherner, 2010). No analogous effort for the examination of cognitive performance and everyday functionality in the healthy spectrum of aging exists. Everyday functionality should be examined in a culturally sensitive manner.

Aim: This study was set out to examine the relation between cognitive performance (CP) and everyday functionality (EF) in neuropsychologically intact seniors in Greece.

Methods: A battery of neuropsychological tests: Mini Mental State Examination (Fountoulakis et al., 2002), Greek version of the California Verbal Learning Test (Farias et al., 2000), Everyday Problem Test (Revised) (Vlachou et al., 2002), Montreal Cognitive Assessment (Petersen et al., 2000), Verbal Fluency, Trail Making Test A and B (Cherner, 2010), Greek versions of the Observed tasks of Daily Living (Koundi et al., 2007) – EPT (Willis, 1993). They also completed two everyday functionality tests, which were modified to reflect the local cultural context.

Results: EF scores declined statistically significant with age. CP (except TMT-A) was statistically correlated with EF. Neuropsychological measures and demographics explained a similar proportion of the variance in EF. Memory, age, education, and income where statistically significant independent predictors of EF.

Conclusion: CP and EF in neuropsychologically intact Greek older adults seems to be related. This relation is small to moderate. Better memory, greater education, and larger income seem to be significant contributors of better EF in older age.

Participants: 104 cognitively Greek neuropsychologically intact seniors (M_age = 59.91, SD = 10.86); Petersen’s (2004) criteria for the detection of Mild Cognitive Impairment were applied.

Instruments: A battery of neuropsychological tests:
- Mini Mental State Examination (Fountoulakis et al., 2002)
- Montreal Cognitive Assessment (Petersen et al., 2000)
- Verbal Fluency, Trail Making Test A and B (Cherner & Schneider, 2002)
- Greek version of the California Verbal Learning Test (Farias et al., 2000)

They also completed two everyday functionality tests, which were modified to reflect the local cultural context.

Demographics: The participants reported their age, education, and income.

Ethics: The study received ethics approval from the Department of Sociological Studies in the University of Sheffield.

RESULT

<table>
<thead>
<tr>
<th></th>
<th>Memory</th>
<th>Age</th>
<th>Education</th>
<th>Income</th>
<th>AR² cognition</th>
<th>AR² demographics</th>
<th>AR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTDL-Gscore</td>
<td>.197*</td>
<td>-.308*</td>
<td>.271**</td>
<td>.211*</td>
<td>20</td>
<td>22</td>
<td>36.7</td>
</tr>
<tr>
<td>EPT-Gscore</td>
<td>.200*</td>
<td>-.191*</td>
<td>.503**</td>
<td>-</td>
<td>29</td>
<td>33</td>
<td>58.5</td>
</tr>
</tbody>
</table>

CONCLUSIONS

It was concluded that the performance of neuropsychologically intact Greek older adults on neuropsychological and everyday functional assessments is related. This relation is small to moderate. Everyday functionality is declining with age, although the “pure” effect of aging is moderate. Age seems not to be the sole contributing factor in everyday functionality decline. Poorer education and lower income seem to be a significant influential factors as well. From the cognitive domains, memory seems to have a pivotal role in the maintenance of a good everyday functionality in older age.
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REFERENCES

Articles
Houli E. (2013). Administration of Montreal Cognitive Assessment (MoCA) test in Greek elderly patients with mild cognitive impairment and patients with dementia. 9th European Conference on Psychological Assessment; and 2nd International Conference of the Psychological Society of Northern Greece, 155-156

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