Cognitive Performance and Everyday Functionality in Healthy Greek Seniors

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Abstract : The demographic change into an aging population has stimulated the examination of seniors' mental health and ability to live independently. The corresponding literature depicts the relation between cognitive decline and everyday functionality with aging, focusing largely in individuals that are reaching or have bridged the threshold of various forms of neuropathology and disability. In this context, recent meta-analysis depicts a moderate relation between cognitive performance and everyday functionality in AD sufferers. However, there has not been an analogous effort for the examination of this relation in the healthy spectrum of aging (i.e, in samples that are not challenged from a neurodegenerative disease). There is a consensus that the assessment tools designed to detect neuropathology with those that assess cognitive performance in healthy adults are distinct, thus their universal use in cognitively challenged and in healthy adults is not always valid. The same accounts for the assessment of everyday functionality. In addition, it is argued that everyday functionality should be examined with cultural adjusted assessment tools, since many vital everyday tasks are heterotypical among distinct cultures. Therefore, this study was set out to examine the relation between cognitive performance and everyday functionality a) in the healthy spectrum of aging and b) by adjusting the everyday functionality tools EPT and OTDL-R in the Greek cultural context. In Greece, 107 cognitively healthy seniors (Mage = 62.24) completed a battery of neuropsychological tests and everyday functionality tests. Both were carefully chosen to be sensitive in fluctuations of performance in the healthy spectrum of cognitive performance and everyday functionality. The everyday functionality assessment tools were modified to reflect the local cultural context (i.e., EPT-G and OTDL-G). The results depicted that performance in all everyday functionality measures decline with age (.197 < r > .509). Statistically significant correlations emerged between cognitive performance and everyday functionality assessments that range from r =0.202 to r=0.510. A series of independent regression analysis including the scores of cognitive assessments has yield statistical significant models that explained 20.9 < AR2 > 32.4 of the variance in everyday functionality scored indexes. All everyday functionality measures were independently predicted by the TMT B-A index, and indicator of executive function. Stepwise regression analyses depicted that TMT B-A and age were statistically significant independent predictors of EPT-G and OTDL-G. It was concluded that everyday functionality is declining with age and that cognitive performance and everyday functional may be related in the healthy spectrum of aging. Age seems not to be the sole contributing factor in everyday functionality decline, rather executive control as well. Moreover, it was concluded that the EPT-G and OTDL-G are valuable tools to assess everyday functionality in Greek seniors that are not cognitively challenged, especially for research purposes. Future research should examine the contributing factors of a better cognitive vitality especially in executive control, as vital for the maintenance of independent living capacity with aging.

Keywords : cognition, everyday functionality, aging, cognitive decline, healthy aging, Greece

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