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Factors associated with the level of inhibitory control in elderly people living in elderly care institutions in Galle District, Sri Lanka

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Objectives: The proportion of elderly people living in institutions has increased in Sri Lanka during the recent decades as a result of population aging and ongoing sociocultural changes. Cognitive functions that are important for goal directed behavior will be increasingly important for independent living. Inhibitory control of irrelevant information (IC) is such cognitive process vital for this. Hence this study was conducted to assess the level of inhibitory control and associated factors among elderly people living in elderly care institutions in Galle District.

Methods: Study was conducted in 190 elderly people living in institutions who are physically independent with Barthel's index score of more than 90. IC was assessed via computerized stroop inhibitory task. Number of errors was calculated to assess the level of inhibitory control. Group differences were assessed through independent sample t test and significant level was kept at $p < 0.05$.

Results: The sample comprised of 69.5% ($n=132$) females with a mean age of 71.78 years ($+6.5$). Mean number of errors of the stroop tasks was 8.88 ($+3.99$). The number of errors in the stroop inhibitory task was significantly lower among females ($n=132$, $p < 0.01$) who have had above secondary education ($n=33$, $p < 0.05$), who engaged in group ($n=153$, $p < 0.05$) and leisure time activities ($n=173$, $p < 0.05$) and who were younger than 70 years of age ($n=78$, $p < 0.01$).

Conclusions: IC was significantly associated with age, educational status, gender, engagement in group and leisure time activities among the study sample.