Video game training enhances functional capacity

B.H. SOARES, T.E. BERTOLIN, A. PASQUALOTTI. ***Video game training enhances functional capacity in older adults.*** *Gerontechnology 2014;13(2):282;* doi:10.4017/gt.2014.13.02.048.00 **Purpose** Among the major changes that come with advancing age is a decrease in muscle mass and gross motor skills[1] that affects the ability of an elderly person to perform activities associated with daily living[2], resulting in a decrease in functional independence[3] that reflects the negative trends in the functional capacity[4]. The paper verifies the effects of traditional exercises and activities with interactive digital games on the functional capacity older adults. **Method** The study used a randomized clinical test. The sample consisted of 35 older adults of both genders, divided into three groups: G1 (n=12, 71.2±7.5 years) used traditional physical activities; G2 (n=10, 70.7±4 8 years) used interactive activities using an Xbox, Kinect, and placebos; the G3 (n=13, 69±5.8 years) used interactive activities with the games listed above and made use of *Spirulina platensis* as a dietary supplement[5]. *Figure 1* shows an activity that tests the coordination of the lower limbs using logical-mathematical reasoning. The task given to the older adults is to hit the ball that displays the correct answer. **Results & Discussion** The results indicated significant differences ($p \leq 0.05$) exist for parameters that measure functional capacity[6], including flexibility, aerobic endurance, speed, agility and balance. *Figure 2* presents the results the Student's t-test for paired samples. The results suggest that performing traditional activities or using interactive games can promote improvements in the parameters related to functional capacity.

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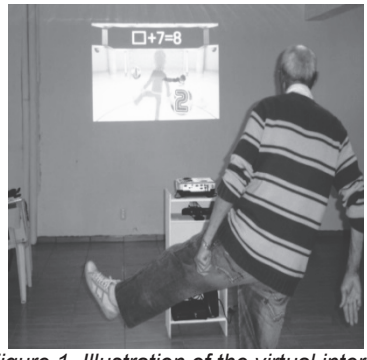

Figure 1. Illustration of the virtual interaction of the task used in the game Body and Brain Connection™

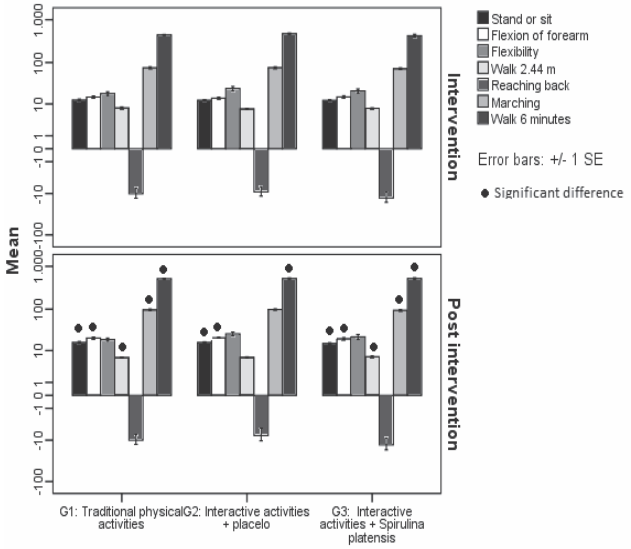

Figure 2. Results of functional capacity tests when comparing the groups