

## Dance to enhance the cognitive and physical abilities in elderly individuals

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In light of the rapid growth of the world's older population, there is urgent need for measures preserving the independence and maintaining the quality of life in elderly individuals. Numerous researches have shown that regular and structured physical activity is associated with successful aging (Vogel et al., 2009). Physical activity appropriated for older adults should include a multicomponent exercise program of moderate aerobic activities, strength training, balance and flexibility exercises. In particular, the physical activity should be personalized and adapted to the specific needs of each subject. Structured specific program of Adapted Physical Activity can prevent and/or reduce the functional decline correlated with aging. Among the various physical activities, recent studies suggest that dancing is a type of physical activity that may allow elderly adults to improve their physical function, health and well-being, and to maintain cognitive function (Hui et al., 2009; Kattenstroth et al., 2010). We investigated the potential cognitive and physical benefits deriving from practice of Dance respect to Adapted Physical Activity participation and not practice of physical activity in leisure time, in 150 healthy elderly subjects (80 women and 70 men; mean age  $68,4 \pm 0,25$ ). All participants were assessed with a battery of cognitive tests using Attention and Concentration Software by Erickson and underwent fitness tests as Tinetti test and sit and reach. Moreover, subjects filled out the SF-12 questionnaire to assess their quality of life and structured questionnaire to evaluate the participation in leisure cognitive activities (reading books or newspapers, doing crossword puzzles, etc.). Our results demonstrated that subjects practicing Dance or Adapted Physical Activity are statistically better in all proposed tests than the sedentary individuals. In particular, subjects who practice dance, show results significantly better in cognitive tests compared with Adapted Physical Activity. Dance, given its peculiar characteristics, results an effective physical activity in maintaining the cognitive and physical functions and an alternatively training feasible in elderly subjects. Increased self-esteem, social contact and psychophysical wellness significantly ameliorate the quality of life during aging .

Keywords: Dance, physical Activity, successful aging, quality of life.