

Various topics

Conventional and complementary interventions and cognitive performance in old age

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Objective

To compare the effects of conventional and complementary offerings such as foreign language and computer courses, body-oriented meditation, kinesiology (“touch for health”, “brain gym”) and physical training on cognitive performance in old age.

Background

The demographic change and the associated increase in age-related deficits call for measures to promote the cognitive potential of elderly and old persons. To date there have been studies on the effects of conventional training, but only empirical reports on complementary offerings.

Methods

The fluid and crystalline intelligence of 196 persons of old age was determined before and after five weeks of training using psychometric test methods (Brickenkamp’s d2 test of attention; Horn’s performance testing system LP 50+ (parallel form A); Hamburg-Wechsler intelligence test).

Training consisted in attending one of the above-named courses ten times. In a control group discussions were held on historical and current political issues.

Participants’ age averaged 71 ± 8.1 years, and the female : male ratio was 4 : 1. Age and gender distributions were similar across groups. The highest age in each group was 80 years. An additional group of over 80 year-olds was studied only with regard to kinesiology.

Results

The Table shows that foreign language and computer training, body-oriented meditation and kinesiology occasioned the best results, i.e. an increase in both fluid and crystalline intelligence, whereas conventional memory or physical training led to an increase in fluid but not in crystalline intelligence and the control group showed no change.

<i>course</i>	<i>fluid intelligence</i>	<i>crystalline intelligence</i>
foreign languages	increase, p = 0.003	increase, p = 0.000
computer	increase, p = 0.008	increase, p = 0.008
memory training	increase, p = 0.003	no change, p = 0.177
body-oriented meditation	increase, p = 0.000	increase, p = 0.003
kinesiology	increase, p = 0.000	increase, p = 0.000
kinesiology > 80 ys.	increase, p = 0.001	increase, p = 0.212
physical training	increase, p = 0.001	no change, p = 0.456
control group	no change, p = 0.811	no change, p = 0.056

Conclusions

Comparisons with pre-interventional and control group performance levels show that both conventional and complementary interventions can have a positive impact on cognitive performance in old age. The results of this cross-sectional study should be complemented through longitudinal studies.

