

Head off Memory Loss - improving cognitive functional capacity

Miina Sillanpää Foundation, Finland

M. Kurki & K. Rolig

Aim of the study

The aim of the study was to develop a coaching model to improve brain health in the elderly. The model should be suitable for course-based activities in organizations as well as in community colleges and adult education centres and it could be disseminated nationally.

Background

As the population ages, the number of people with memory disorders increases. Moreover, stress during the final years of people's working lives and the aim to lengthen careers challenge professionals in the field to develop coaching models to prevent memory disorders. Memory disorders can be prevented by health promoting lifestyle.¹⁻⁴

Participants

Younger age group: 70 people of working age between 55 and 64 (80 % women)

Older age group: 120 retirees between 65 and 75 (86.7 % women)

Control group: 40 people not participating in the intervention but who could have applied for the course (87.5 % women)

Content of the intervention

The coaching was carried out in groups of 10 which met once a week for 8 weeks. The course sessions included information and exercises relating to memory functions, mental well-being, sleep and relaxation, and lifestyles promoting memory health. The course was run by a physiotherapist and an occupational therapist familiar with brain health and memory functions.

Study design

Measurements were made by means of Mindex software installed in a mobile phone. Measurements were conducted at the beginning of the course, at the end of the course and six months after the course.

Variables

Neuropsychological reaction time tests:

Choice Reaction Time, Flanker Interference, Delayed Matching to Sample, Digit-Symbol Substitution and Recall

Memory questionnaire (PRMQ)

Health-related quality-of-life questionnaire (RAND-36)

Results

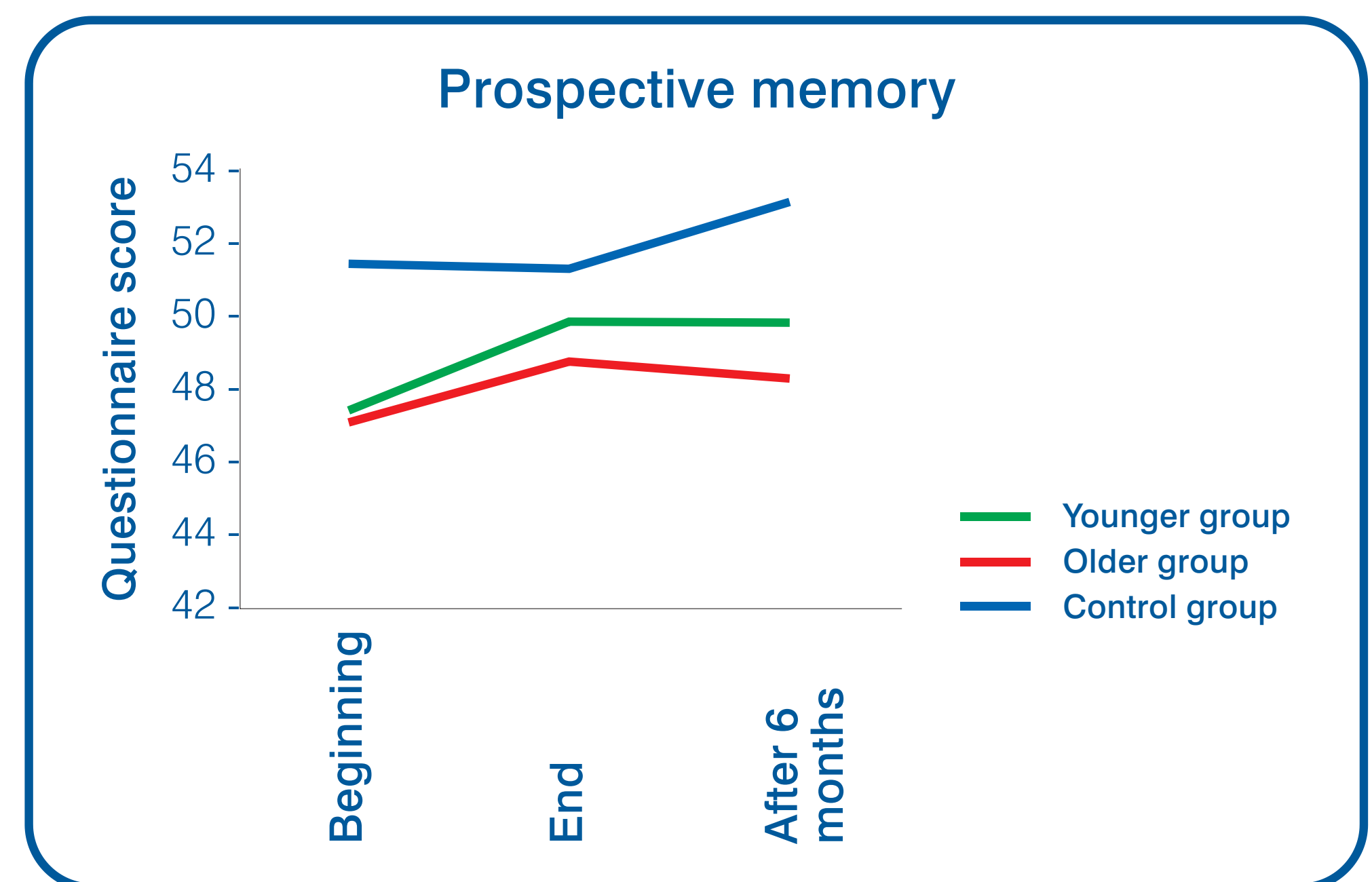
Prospective memory

The estimates of self-rated memory functions

improved significantly during the course in both intervention groups when compared to the control group

Reaction times in the Flanker Interference test

improved significantly during the course in the younger intervention group

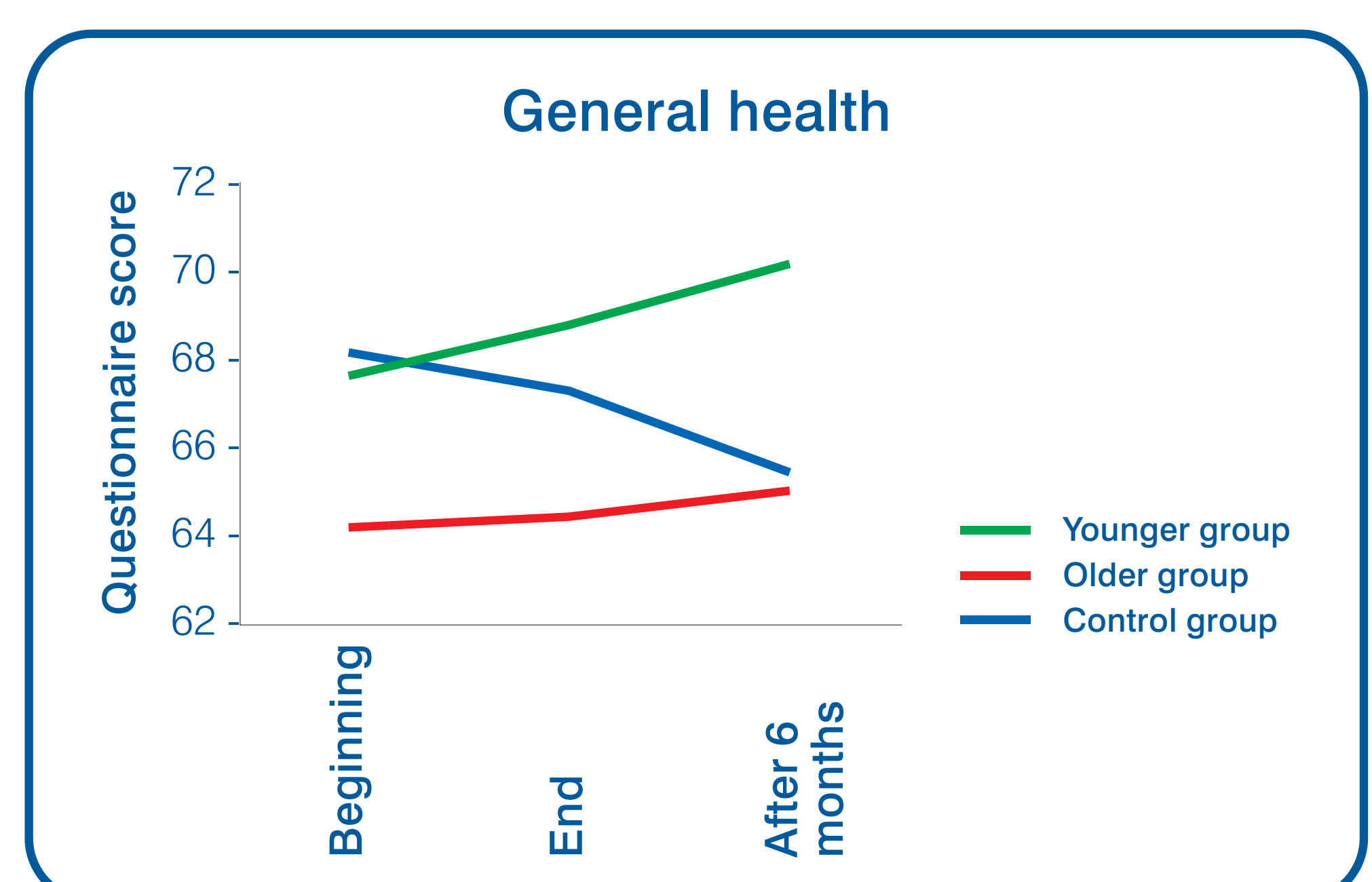


General health

The estimate of self-rated general health

improves in both intervention groups 6 months after the course. The difference between the younger intervention group and the control group is significant

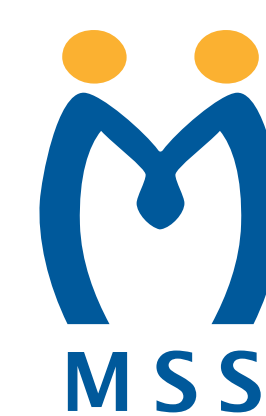
The estimate of role limitations due to emotional problems improved significantly during the course in both intervention groups



Conclusions

Group coaching has positive effects, especially in age between 55 and 65, on memory functions, both when measured by means of reaction time testing and self-assessed. Participation in coaching has been enthusiastic in both age groups.

The coaching model will be piloted in senior citizen activities.



Miina Sillanpään Säätiö
www.miinasillanpaa.fi



Bibliography

- 1) Alagiakrishnan, K., McCracken, P. & Feldman, H. 2006. *Treating vascular risk factors and maintaining vascular health: Is this the way towards successful cognitive ageing and preventing cognitive decline?* Postgrad. Med. J. 82:101-105.
- 2) Deslandes A, Moraes H, Ferreira C, Veiga H, Silveira H, Mouta R, Pompeu FA, Coutinho ES, Laks J. 2009. *Exercise and mental health: many reasons to move.* Neuropsychobiology 59(4):191-8.
- 3) Gates N, Valenzuela M. 2010. *Cognitive exercise and its role in cognitive function in older adults.* Curr Psychiatry Rep. Feb;12(1):20-7.
- 4) Lista I, Sorrentino G. 2010. *Biological mechanisms of physical activity in preventing cognitive decline.* Cell Mol Neurobiol. 30(4):493-503.