

# The effect of a lifelong learning intervention on people with dementia: a pilot control study

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## Introduction

An education service in Denmark is providing lifelong learning for people diagnosed with early stage dementia. Lessons are specially developed to support cognitive function, quality of life, problem solving, self-esteem and social engagement. These are provided through classes in cognitive training, music, art and woodwork.

## Methods

This study compared people with dementia attending lifelong learning classes (n=36) and people with dementia receiving treatment as usual (n=34). The utilised tests were cognition (MMSE), quality of life (QOL-AD), self-efficacy (General Self-Efficacy Scale), self-esteem (Rosenburg Self-Esteem Scale), and socialisation (Hawthorne Friendship Scale). Data was analysed using descriptive statistics and repeated measures analysis of variance. The study is part of a mixed-methods study where qualitative research investigates how people with dementia experience these measures, and whether this process supports their dignity.

Table 1 Mean changes in score

Outcome measure	Lifelong learning group	Control group
MMSE (mean change in score (SD))	0.588 (3.350)	0.030 (2.963)
General self-efficacy scale (mean change in score (SD))	0.219 (4.353)	-1.060 (5.127)
Friendship scale (mean change in score (SD))	0.223 (2.407)	-0.500 (3.670)

## Conclusion

This pilot-study had low power in detecting significant changes in the groups, but does, however, provide information for estimating sample sizes in future, larger studies. Differences between the intervention and control group were indicated by a slightly greater increase in MMSE scores per person in the intervention group, a slight decrease in QOL-AD score for both groups, a small increase in the General-Self Efficacy score for the intervention group, and a small average increase in Hawthorne Friendship Scale scores for the intervention group.

## Results

The estimates of variability of the tests can be used in designing a future, definitive study. Recruitment of participants relies heavily on the motivation and understanding of the concept with the staff at the education service. Mean changes in scores in the control (C) and intervention (I) groups (baseline to follow-up) for three of the measures appeared interesting to investigate further. Repeated measures analysis of variance showed no significant difference from baseline to follow-up within the same group or between the intervention and control groups.