Animal-assisted intervention in health promotion for elderly persons with dementia

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(Olsen, Pedersen, Bergland, Enders-Slegers, Patil, & Ihlebæk)
Dementia

Chronic/progressive nature

Disturbance of multiple higher cortical functions

78,000 affected

Neuropsychiatric symptoms

Balance, mobility, gait

Quality of Life (QoL)

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Background  Method  Results  Discussion  Conclusion
Previous research

- Mixed results
- Lack of adequate study design
- Limited use of control groups
- Disputable conclusions
Main aim

To investigate animal-assisted group activity with a dog as a health promoting activity for persons with dementia
Methods

• A randomized controlled multicentre 12-week trial with a three-month follow up
• Adapted units for persons with dementia
  – 10 different nursing homes (n=51 participants)
  – 16 different daycare centres (n=79 participants)
Inclusion/Exclusion criteria

+ Age above 65
+ Diagnosis of dementia or having a cognitive deficit measured as a score less than 25 on Mini-Mental State Examination

- Fear of dogs
- Dog allergy
Control group – Treatment as usual
Human-animal team

Screening test

Course in AAI

Practical exam

(Illustrations by Petrine A. Gullesen)
Standardized setting

Method

Discussion

Background

Results

Conclusion

30 min

February

March

April

2014

Dyrebar Omsorg
Tasks AAA

- Pet the dog
- Feed the dog a treat
- Brush the dog
- Throw a toy for the dog to fetch
Assessments

- Quality of life
  - The quality of life in late-stage dementia (QUALID) (Weiner et al., 2000)

- Depression
  - Cornell scale for depression (CSDD) (Alexopoulos et al. 1988)

- Balance
  - Berg Balance Scale (BBS) (Berg et al., 1989; Halsaa et al., 2007)

- Behaviour
  - Video/ethogram

- Demographic data

- Cognitive function
  - Mini-Mental State Examination (MMSE) (Folstein et al. 1975; Strobel & Engedal 2009)
  - Clinical Dementia Rating Scale (CDR) degree of dementia
Depression (CSDD range 0-38)

Change from pre-test to post-test = ns
Change from pre-test to follow-up = 0.037
Depression  (CSDD range 0-38)

**CSDD mild/moderate dementia**
- Pre-test: 5.00
- Post-test: 7.00
- Follow-up: 9.00

**CSDD severe dementia**
- Pre-test: 5.00
- Post-test: 13.00
- Follow-up: 19.00

Change from pre-test to post-test = ns
Change from pre-test to follow-up = ns

Change from pre-test to post-test = 0.054
Change from pre-test to follow-up = 0.001
Quality of life (QUALID range 11-55)

**QUALID mild/moderate dementia**

- Change from pre-test to post-test = ns
- Change from pre-test to follow-up = ns

**QUALID severe dementia**

- Change from pre-test to post-test = 0.035
- Change from pre-test to follow-up = 0.003
Balance (BBS range 0-56)

Change from pre-test to post-test = 0.03
Results

- Significant effect
- C. 20% reduction in falls
- Strong association between clinical improvement on balance and improvement in quality of life from pre-test to post-test
Method

• Video recorded one session early and one session late in the intervention period
• Analysed behaviour
• Categorized behaviours
Registration of behaviour

- «Touch other persons»
- «Look at dog»
- «Look at dog»
- «Talk to dog»
- «Do activities with dog»
- «Look at other persons»
- «Look at other things»
- «Stereotype behaviour»
- «Look at dog/activity»
Results

- The participants looked at other people, smiled to them, talked with them and had physical contact
- Secure environment
- High engagement
- Behaviours targeted to either the dog or other people
  - Look at dog-activity, Smile or laugh at dog, Conversation, Look at other people, Touch dog
- Dog got the participants attention
- High level of involvement
- Positive attitude
Discussion

Engagement → Positive affect → Effect on depression and QoL
Limitations

- Proxy measures
- Limited sample size
- Blinding
- Novelty effect
- Handler effect
Conclusion

Positive effect on depression, balance and QoL

Should be implemented in dementia care

Individual tailoring is needed
Collaboration

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Norges miljø- og biovitenskapelige universitet

AntrozoologiSenteret

Utviklingssenter for sykehjem og hjemmetjenester

Høgskolen i Sørøst-Norge
What’s next?

- School dog project with the Dyslexia organization in Norway
- New course in AAI for farm animals with NMBU
- New course in AAI for cats with professor Bjarne O. Braastad

www.dyrebaromsorg.no
New literature

1. Dyreassisterede Aktiviteter med Hund
   Grunnleggende kunnskap og ferdigheter
   Editor: Line Sandstedt

2. Handbook on Animal-Assisted Therapy
   Theoretical Foundations and Guidelines for Practice
   Edited by Aubrey H. Fine
Feel free to get in touch!

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Engagement-theory

Environmental - Environmental attributes - Presentation attributes

Environment stimulus interaction

Stimuli attributes

Personal stimulus interaction

Person attributes

Environment stimulus interaction

Engagement

Affect

Behaviour

(Cohen-Mansfield et al., 2009)
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