

CRDL – interactive technology eliciting engagement in elderly people with dementia

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Zuyd
Research

ZU
YD

Background and aim of the study

Advanced stage of dementia:

- problems with communication and verbal interaction,
- decrease in participation and social isolation

CRDL (Cradle) might offer a solution



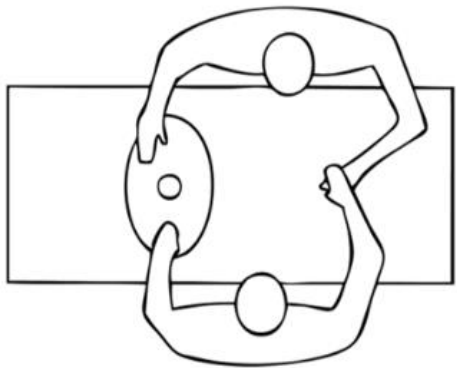
Rationale: focus on stimulation of parts of the brain which remain intact also in advanced dementia:

- Touch (somatosensory cortex)
- Sound - music (a.o. anterior cingulate cortex)

Background and aim of the study

Research questions:

1. Which interventions using CRDL may contribute to the stimulation of engagement for people with dementia?
2. What are effects of the interventions in promoting engagement* in people with dementia?



*Engagement as defined by Cohen-Mansfield et al. Am J Geriatr Psychiatry. 2009; 17(4):299-307.



alzheimer
nederland

Producten bij dementie
CRDL (Cradle)

Methods (1)

Phase 1: Intervention development

- Input from individual interviews with experienced CRDL professionals throughout the Netherlands (n=9)
- Focus group session with care professionals (n=6)

Data analysis

Clustering of themes and prioritizing of interventions

Selection of 2 interventions to study in Phase 2.



Methods (2)

Phase 2: Effect study in practice

- Persons with advanced stage of dementia (n=30)

Quantitative part: ABB-Design

- A session - without CRDL (usual care)
- B sessions (2x) - with CRDL

Primary outcome: Engagement → using the 10 item Positive Response Schedule (PRS) (Perrin, 1997)

Qualitative part:

Experiences professionals → semi-structured interviews

Data analysis:

- PRS: Wilcoxon signed rank test
- Qualitative data – content analysis

Phase 1: Description of interventions

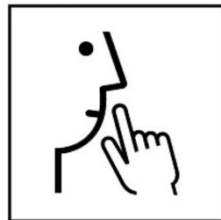
1) Influencing behavior

- Aim: to prevent or tackle negative behaviour or to reinforce positive behavior

2) Promotion of social interaction

- Aim: to invite or stimulate people for social interaction, e.g. between client with advanced dementia and partner

Instructions for application of the interventions based on PEO-model



Phase 2: Effect study in practice

- 2 elderly care organizations (nursing homes)

Clients:

- Different types of advanced dementia
- N=30 (2 x 15)
- 22 ♀, 8 ♂
- Average age 84 (range 67-100 years)
- Selection intervention 1: n=10
- Selection intervention 2: n=20

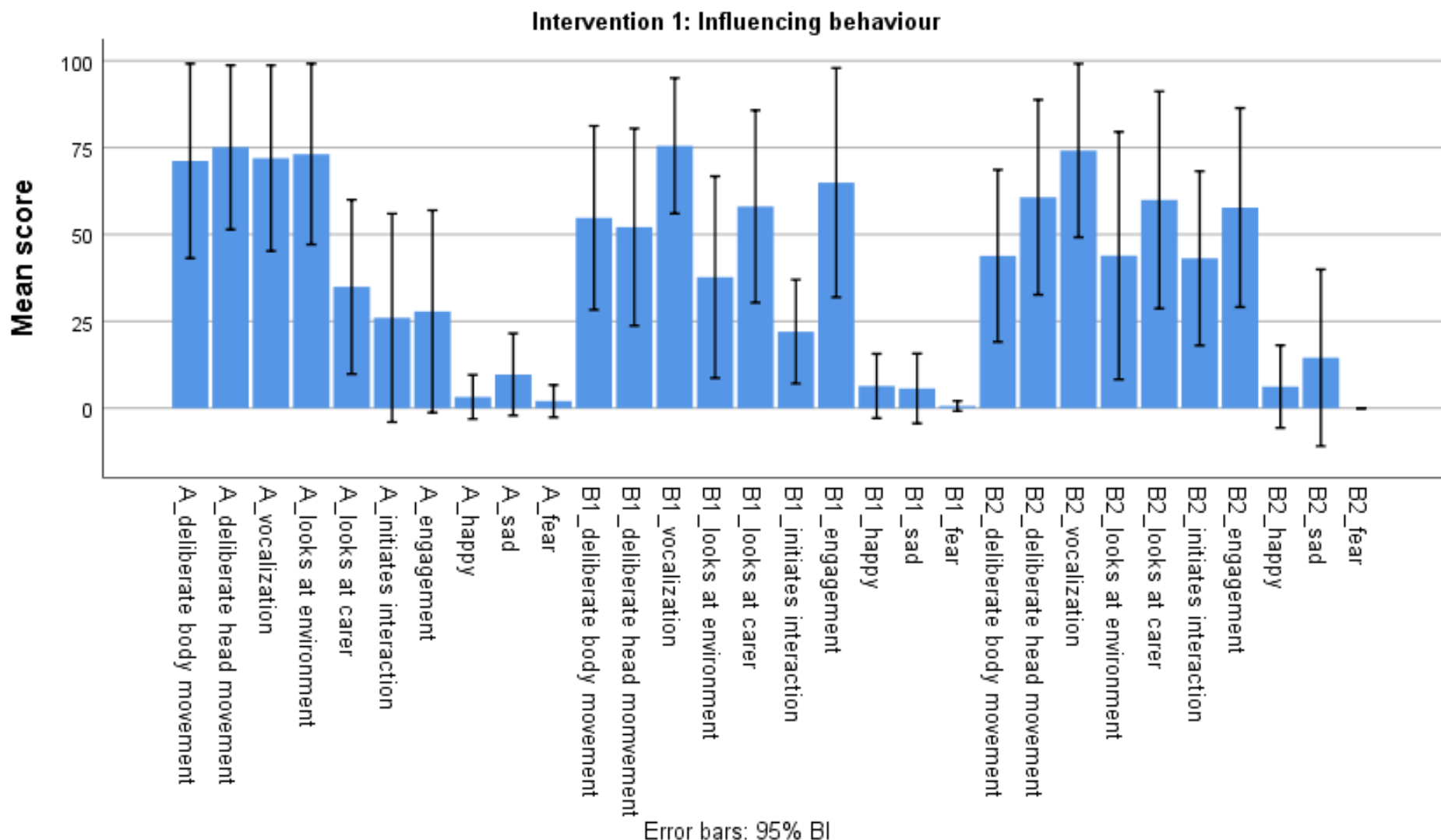
Professionals:

- N=6
- 5 ♀, 1 ♂
- 2,5-40 years of working experience

Results (3)

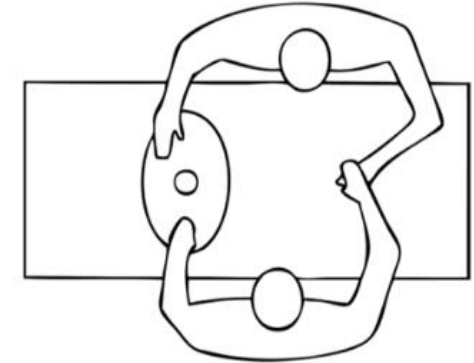
Positive effects (A-BB) on items:

- Deliberate body movement
- Deliberate head movement
- Focus on environment
- Engagement



Results (4)

- **No significant differences** for intervention 2 *promotion of social interaction* between sessions A (without CRDL) and B (with CRDL) were found
- Qualitative results:
 - Overall positive experiences by professionals
 - willingness to proceed working with CRDL



Main conclusions:

- Development of two meaningful interventions
- Positive indications for effects for one of the interventions

Future research:

- Focus on the effects of these and other CRDL interventions
 - Larger population
 - Other target groups

Thank you for your
attention!

Questions?

More information:

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