



Promoting physical activity among people with profound intellectual and multiple disabilities



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People with PIMD

- Profound intellectual disability
- Profound motor disability
- Sensory impairments
- Health problems





Physical activity is important

Independence and participation

(van der Putten et al., 2005)

Alertness, challenging behavior, quality of life

(Jones et al., 2007)

People with PIMD are inactive

(Waninge et al., 2013)

Most activities offered are passive activities

(Vlaskamp et al., 2003; Vlaskamp & Nakken, 2008; Zijlstra & Vlaskamp, 2005)

Motor activation is a minor part of support

(Bossink et al., 2016; van der Putten et al., 2015)





How to promote physical activity?

Lack of evidence-based interventions

(van der Putten et al., 2010)

Purpose: To develop and implement an evidence-based program that promotes **structural** and **specific** motor activation in the support of people with PIMD

Care institutions developed various initiatives



Research protocol

1. Overview
2. Quality and potential
3. Development of a program
4. Feasibility
5. Effectiveness



Method

Two-phase exploratory approach:

1. Questionnaire
2. Documents, personal interview, observation

Content of initiatives:

Aspects (Vilans, 2016)

- Goal(s) and sub goals
- Supposed application
- Available material
- Theoretical rationale
- Claimed benefits

Quality of initiatives:

Classification of effectiveness

(van Yperen & Veerman, 2007)

0. Implicit knowledge
1. Explicit knowledge
2. Effective in theory
3. Systematic evaluation
4. Well-designed studies



Results

Support professionals (n = 42)

Motor activation initiatives (n = 259)



Results

Number of motor activation
 options from questionnaire (n = 259)

Duplicates removed
 (n = 153)

Motor activation options coded (n = 106)

Motor activation options excluded after coding (n = 77)

- Framework/context (19)
- Material (20)
- ADL/transfer/relocation (13)
- Location (7)
- Therapy (6)
- Event (5)
- Approach (4)
- Theory/vision (3)

not offered during day care (2)
 Not used at the moment (1)
 No specific content (2)

Potential motor activation options (n = 8)
 Specific content (5)
 Shared by >10 institutions (3)



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Motor activation options excluded after additional screening (n = 21)

Not/partly suitable for people with PIMD (9)

Not primarily to promote physical activity (7)

Not offered during day care (2)

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Potential motor activation options (n = 8)

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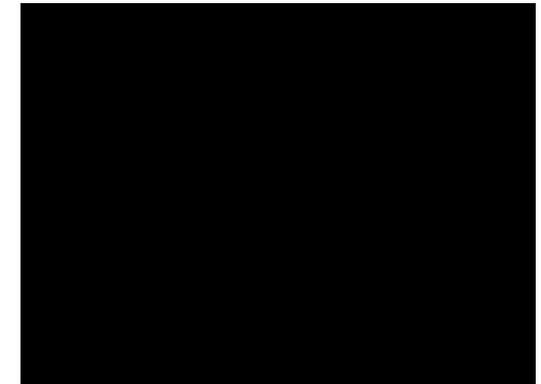




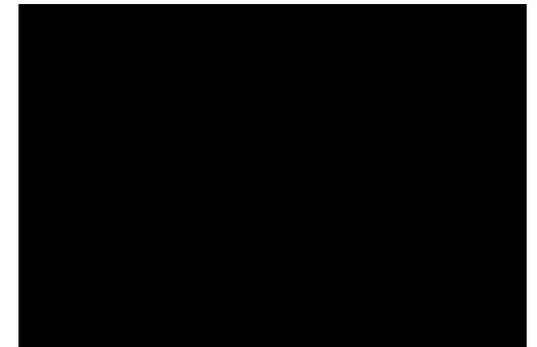
Swimming

1. Swimming activity

- Various content
 - Several goals (e.g., relaxation, fitness)
 - Several influences (Watsu, Halliwick)
 - No documentation
-
- Based on implicit knowledge
 - As far as we know: no studies on the effects of swimming for people with PIMD



Bosk, 2016

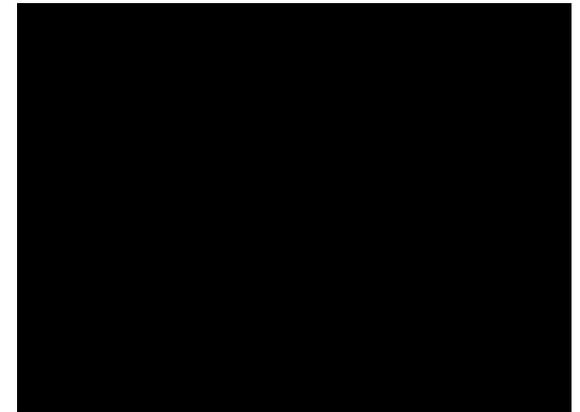




Power of simplicity

2. [Kracht van eenvoud]

- Simple play and ADL activities
- Goals: enjoyment, alertness, participation, development, quality of life
- (Partly) based on explicit knowledge
- One observational study (Knibbe, 2015)
Positive trend: alertness, enjoyment, mood, interaction

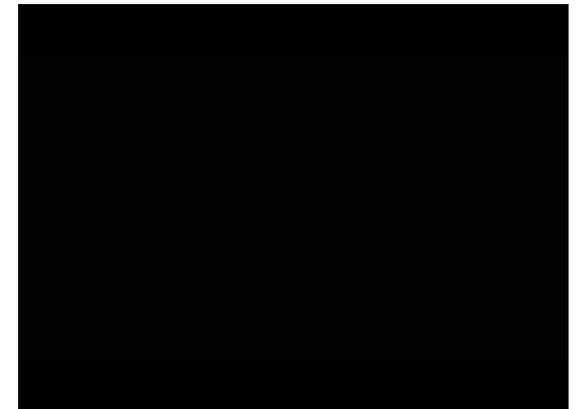




Power-assisted exercise

3. Power-assisted exercise intervention

- Passive/assisted exercises
- Goals: mobility, strength, endurance, relaxation
- (Partly) based on explicit knowledge
- Study into the effects on several domains of the ICF model
(Bossink et al., submitted)
N = 37, randomized controlled trial,
Significant increase in oxygen saturation

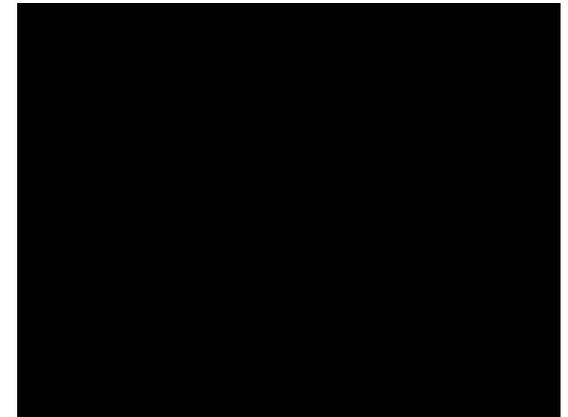




Vita Motion

4. Vita Motion

- Being moved by the use of technology
- Goals: balance, relaxation, mood, alertness, physical health, well-being, quality of life
- (Partly) based on explicit knowledge
- Unpublished student thesis (single-subject design):
 - Well-being (n = 4): no effect (Bossink, 2011)
 - Balance (n = 11; n = 4): positive trend (de Jong, 2012; Visker, 2012)





Conclusion

- Positive developments in this field
- Several motor activation initiatives for people with PIMD
- Less evidence for effectiveness



Discussion

- Implementation of structural motor activation
- Motor activation related to individual needs, preferences and possibilities
- From practice-based to evidence-based
- Definition of physical activity
- Current situation in The Netherlands



Thank you for your attention!

Are there any questions?

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