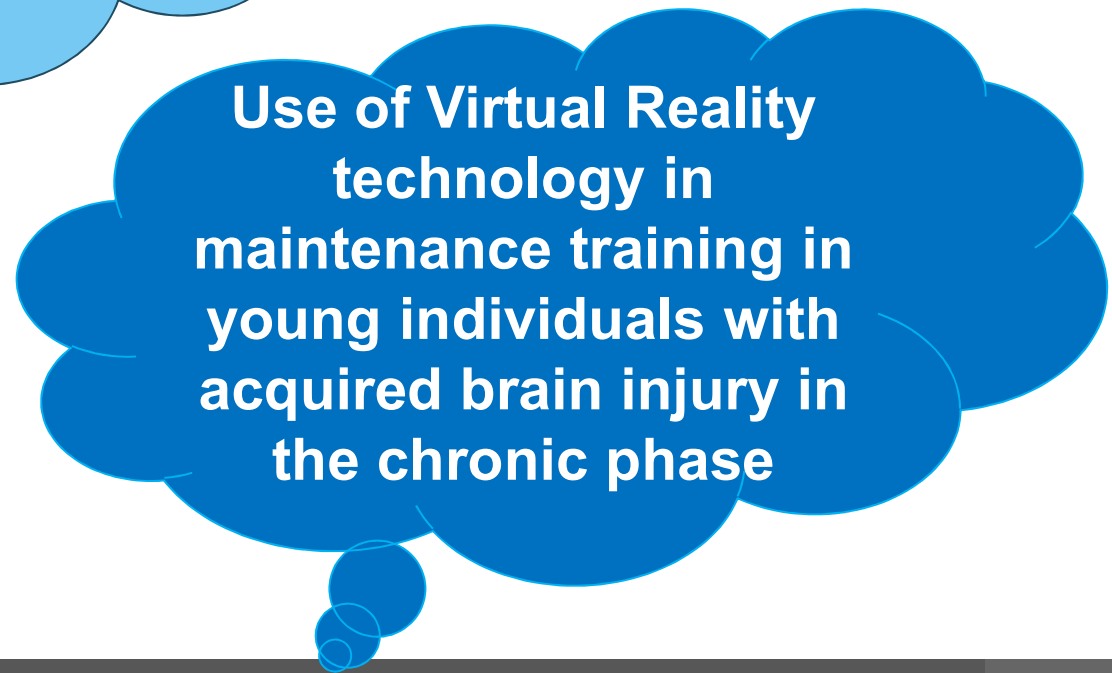
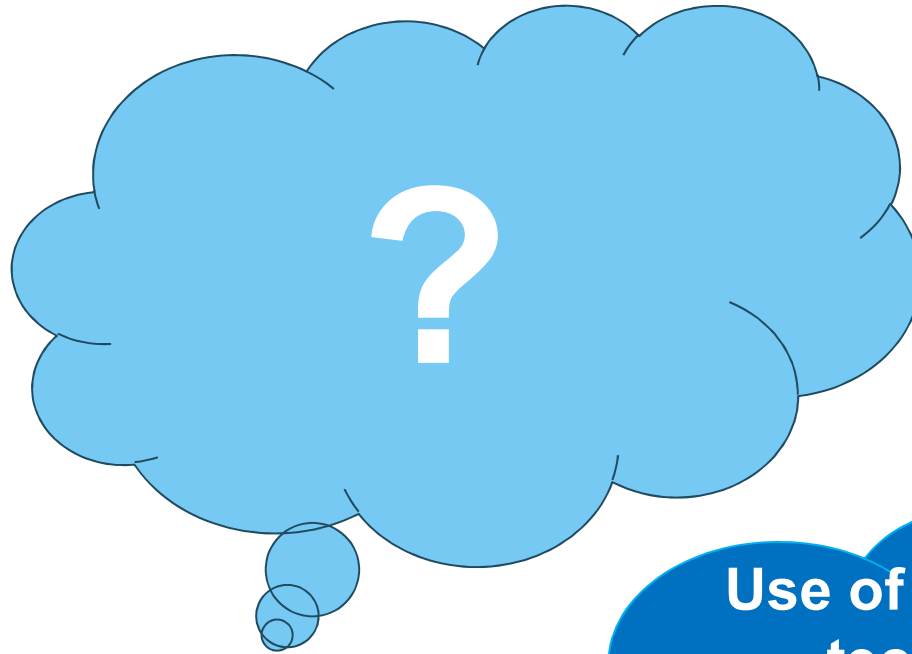


STAYING MOTIVATED

**Maintenance physiotherapy in the
chronic phase after acquired brain injury.
A single-case experiment.**

Karin Spangsberg
Project manager, MPH and specialist physical therapist – neurology
WHINN. Odense. DK. 20/11/2019



Rigshospitalet
Department of Neurology



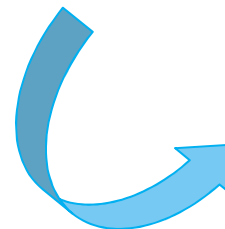
The Capital Region
of Denmark

LevAs
Special education school

Selma Marie
Neurorehabilitation Selma Marie

VihTek
Research and Test Center for
Health Technologies

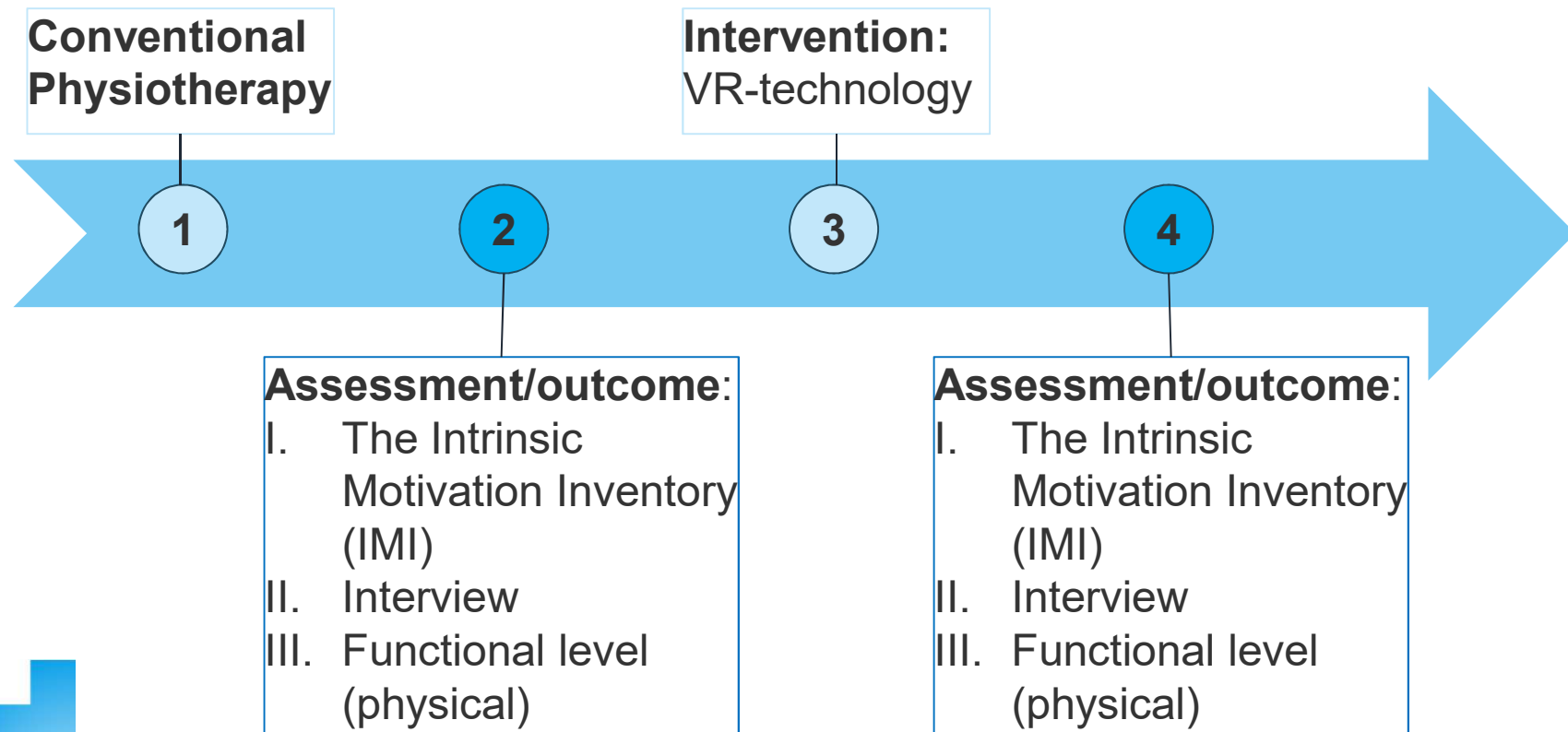
- ✓ From assumptions to Facts
- ✓ Clinical reasoning
- ✓ Virtual Reality - Motivation



REGION

Collaboration

Pilot study - AB design



Participants

ASO



- 20 years
- Illness > 7 years ago
- Severe physical disability:
 - (FIMmot = 65)
 - Postural control → transfer
- Communication and cognition:
 - (FIMcog = 33)
- Enjoy music

MT



- 22 years
- Illness > 3 years ago
- Slightly/moderate physical disability:
 - (FIMmot = 89)
 - Cardiorespiratory → walking
- Communication and cognition:
 - (FIMcog = 35)
- Enjoy competition

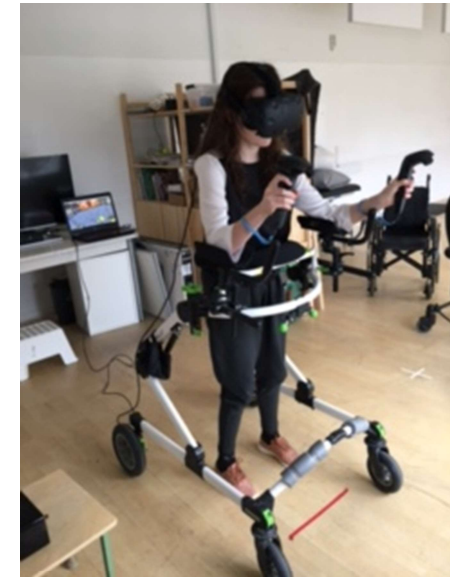
- Life-long need for physiotherapy (≥ 2 times a week)
 - Maintain level of physical activity
- Not motivated for training



AOS

Physiotherapy:
Postural control
3 x week; 60 min.

VR-technology:
VR (HTC Vive)
3 x week; 30-45
min., 6 weeks



1

2

3

4

- I. IMI
- II. Interview
- III. Functional level
(physical):
 - a. TIS
 - b. MAS
 - c. FIMmot

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MT

Physiotherapy:
Fitness studio
2 x week

VR-technology:
VR (Virzoom)
2 x week; 30-45
min., 4 weeks



1

2



3

4

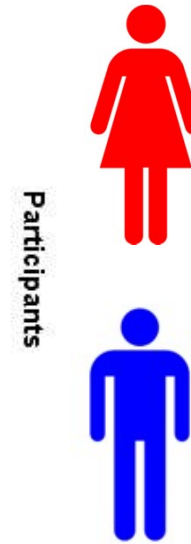
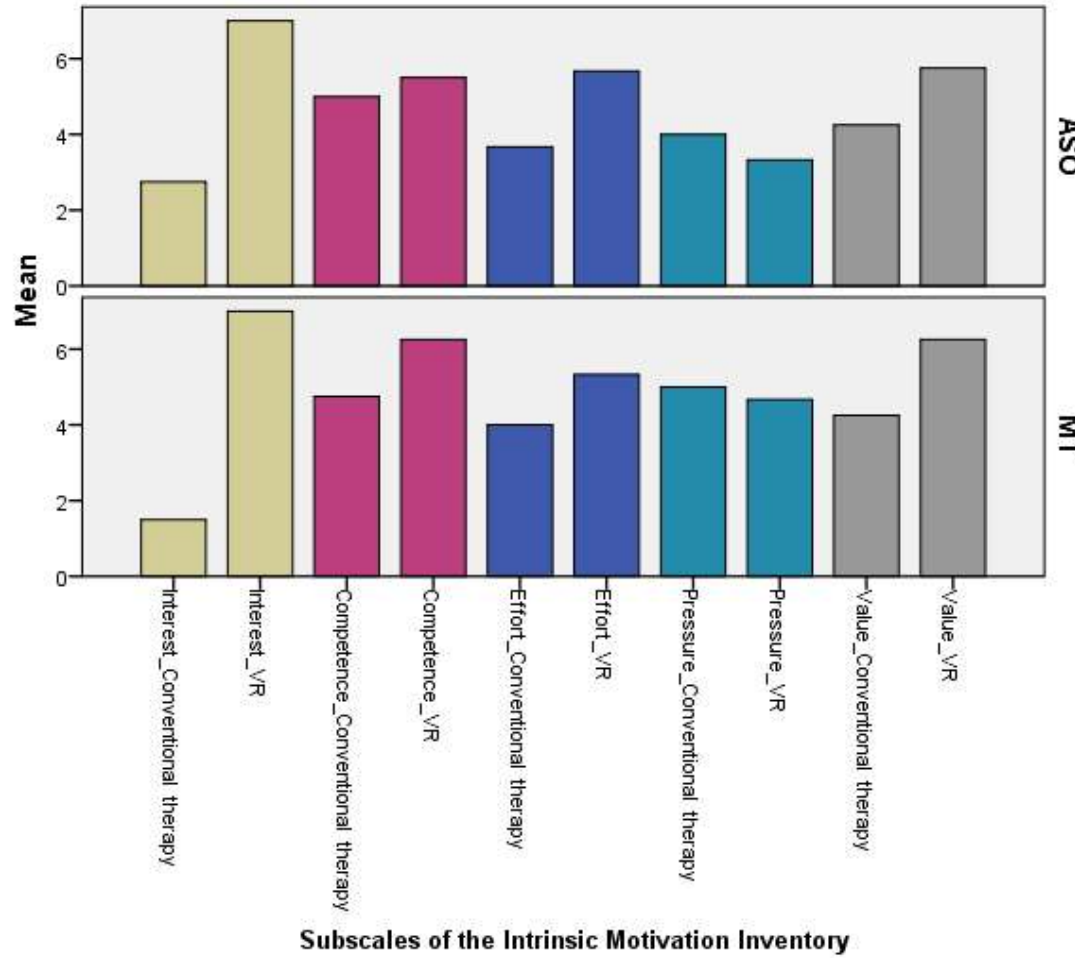
- I. IMI
- II. Interview
- III. Functional level (physical):
 - a. 10 M Walk Test
 - b. Watt-max test
 - c. FIMmot

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- III. Functional level (physical):
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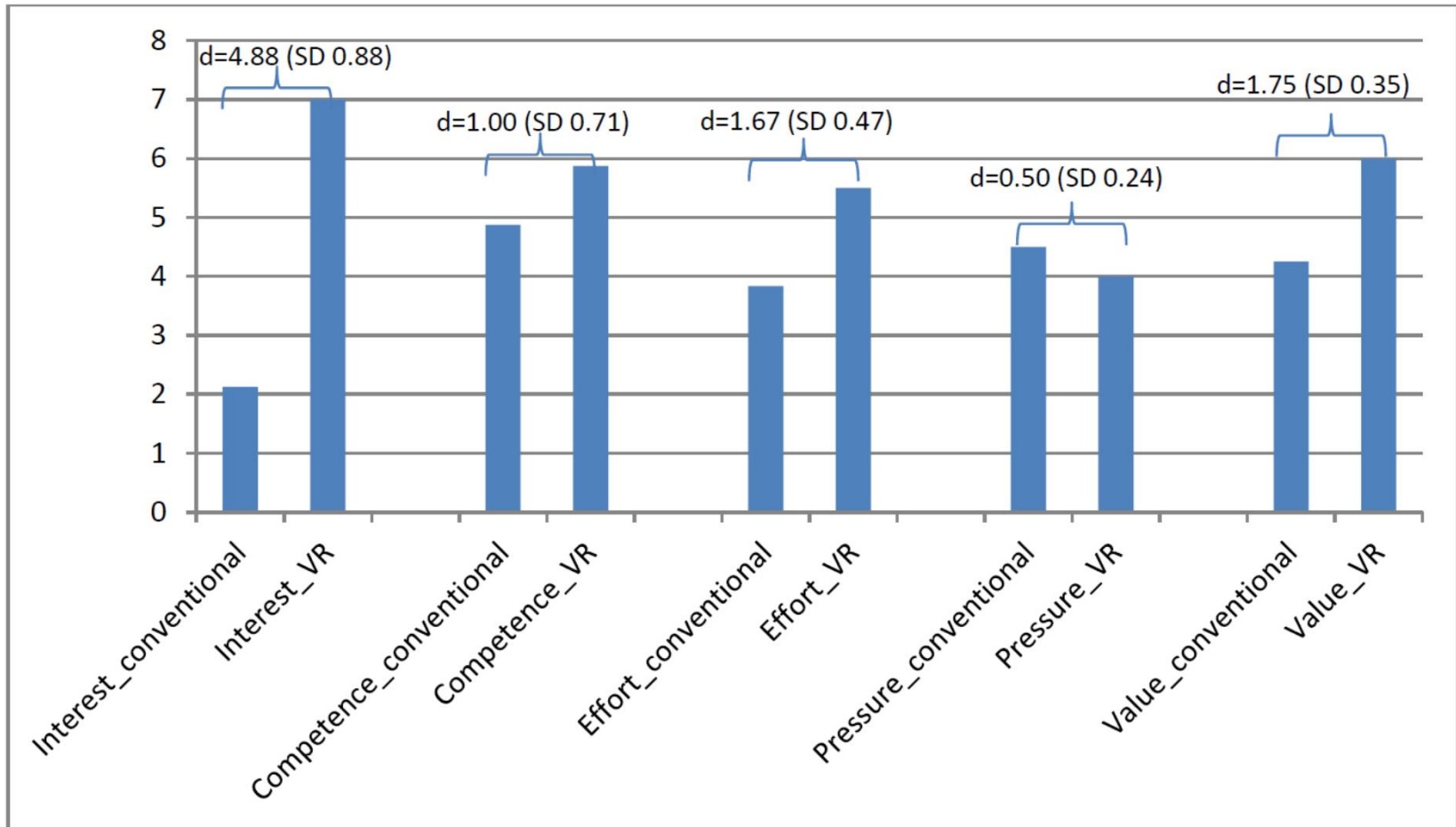
Physical outcome measures

	Measure	Baseline	Post intervention	Change
ASO 	TIS total	13	16	3
	MAS – to side lying	4	6	2
	MAS – to sitting	6	6	0
	MAS – sitting balance	5	5	0
	MAS – to standing	1	1	0
MT 	10 M Walk Test Comfortable walking speed	1.47	1.40	-0.07
	10 M Walk Test Fast walking speed	2.01	2.08	0.07
	Watt-max test	158	214	56
	Test of VO ₂ max	2003	2665	662

Motivation



Motivation



Statements

I'm laughing during training. So much fun!



I do things that I don't usually do during training!

It's fun!
I just want to keep on training!

I just want to do better. I want to improve my score every time!

I could chose games, music and difficulty myself. Great!

The equipment .. I just want to buy it!



She came to training without a reminder. Laughing and happy!



During training he was engaged and focused. Happy and smiling!

STAYING MOTIVATED

BE CURIOUS



**THANK YOU FOR YOUR
ATTENTION!**