

**The CONECISI trial:
an RCT of a multidisciplinary cognitive
behavioral program for coping with
chronic neuropathic SCI pain**

Matagne Heutink

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Adelante, Hoensbroek



Revalideren

Werken

Onderzoeken

Samenwerken

Background (1)

- ▶ Prevalence of SCI pain 65-85%
1/3 severe pain (Siddall, et al., 2003; Wollaars 2007)
- ▶ Prevalence 5 years after SCI (Siddall, et al., 2003)
 - at-level pain \approx 40%
 - below-level pain \approx 35%



Background (2)

- ▶ Treatment is often insufficiently effective,
particularly for neuropathic SCI pain
(Smith & Grupstra, 2007)
- ▶ Psychosocial factors (e.g. pain cognitions) are
associated with chronic neuropathic pain
(Wollaars et al., 2007; Widerström-Noga, et al., 2007)
- ▶ Cognitive behavioral approach might
be relevant for chronic neuropathic
pain after SCI (Norrbrink Budh, et al., 2006)



The CONECISI trial

The CONECISI trial (**CO**ping with
NEuropathic **C** Spinal cord **I**njury pain):

“Evaluation of a multidisciplinary
cognitive behavioral program for
coping with chronic neuropathic pain
following spinal cord injury”



Intervention (1)

- ▶ Comprising educational, cognitive, and
behavioral interventions
- ▶ 10 weekly sessions (3 hours),
comeback session in week 13
- ▶ Groups of \pm 8 persons with SCI
- ▶ Guided by a psychologist / nurse practitioner
and a physiotherapist

Intervention (2)

- ▶ Guided group discussion
- ▶ Education on SCI pain
- ▶ Education on pain coping and cognitions
 - Activating event Beliefs Consequences (ABC) model
 - BioPsychoSocial (BPS) model (capacity and load)
- ▶ Exercises and sport workshops
- ▶ Meeting with a role model
- ▶ Buddy (session 2 and 8)
- ▶ Homework assignments



In- en exclusion criteria

Inclusion:

- ▶ SCI and ≥ 18 years old
- ▶ ≥ 1 year after discharge from first SCI rehab
- ▶ Main pain type neuropathic pain
- ▶ Duration of neuropathic pain ≥ 6 months
- ▶ Pain intensity last week ≥ 40 (scale 0-100)

Exclusion:

- ▶ SCI by metastatic tumour
- ▶ Previous CBT for coping with pain after SCI
- ▶ Serious language problems or psychopathology

Effectiveness of the intervention (1)

▶ Primary outcome measure

- Chronic Pain Grade questionnaire (*Von Korff, et al.*)
 - Pain intensity
 - Pain-related disability

▶ Secondary outcome measures

- Hospital Anxiety and Depression Scale (*Zigmond & Snaith*)
- Utrecht Activities List (*Post*)
- Life Satisfaction Questionnaire (*Fugl-Meyer, et al.*)

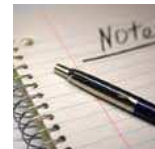
Effectiveness of the intervention (2)

▶ Exploratory: Are pain coping and pain cognitions related to intervention effects?

- Coping with Pain Questionnaire (*Rosenstiel & Keefe*)
- Pain Coping Inventory List (*Kraaimaat, et al.*)
- Pain Cognition List (*Vlaeyen, et al.*)

Participant satisfaction

- ▶ Rating of usefulness by participants
- ▶ Identification of the elements participants think are most effective
 - Evaluation form



Study design

- ▶ Multicenter, Randomized Clinical Trial
- ▶ Waiting-list control group (6 months)
- ▶ Randomization per center
- ▶ Four rehabilitation centers



Participating rehabilitation centers



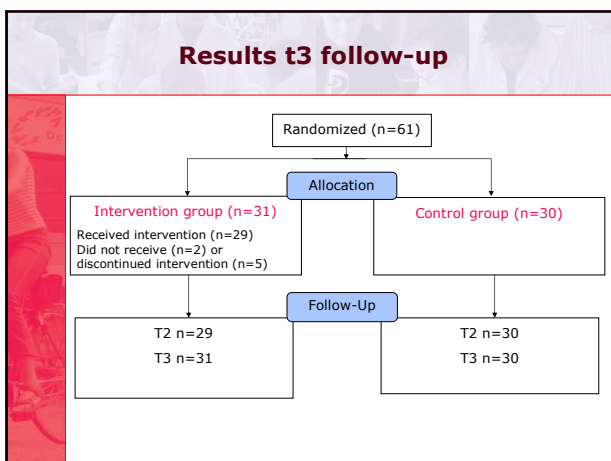
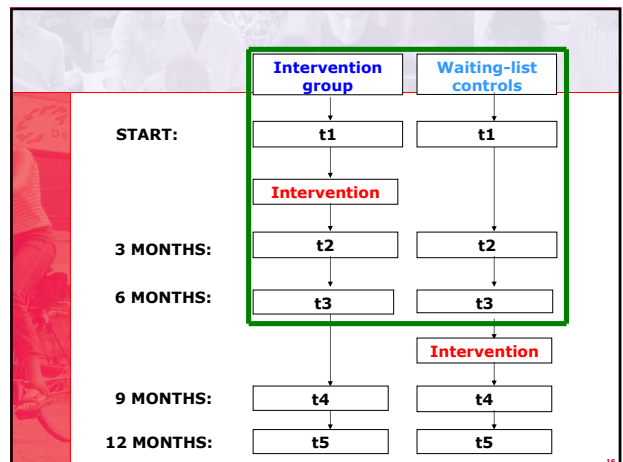


Papers (1)

- ▶ Heutink M, Post MWM, Wollaars MM, van Asbeck FWA. **Chronic spinal cord injury pain: pharmacological and non-pharmacological and non-pharmacological treatments and treatment effectiveness.** *Disabil Rehabil.* 2011; 33(5): 433-440.
- ▶ Heutink M, Post MWM, Luthart P, Pfenning LEMA, Dijkstra CA, Lindeman E. **A multidisciplinary cognitive behavioural programme for coping with chronic neuropathic pain following spinal cord injury: the protocol of the CONECSI trial.** *BMC Neurol.* 2010 Oct 20;10(1):96.

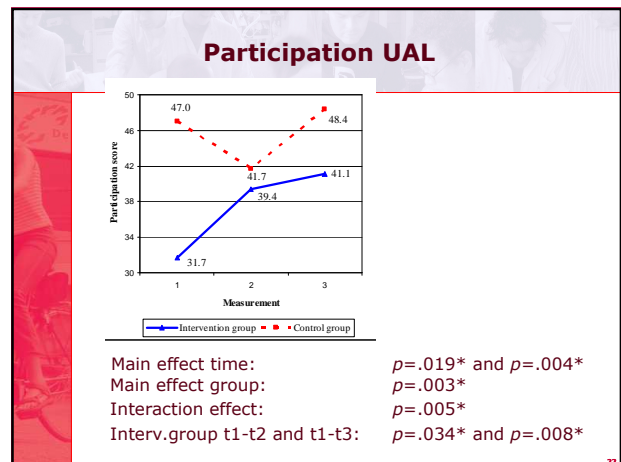
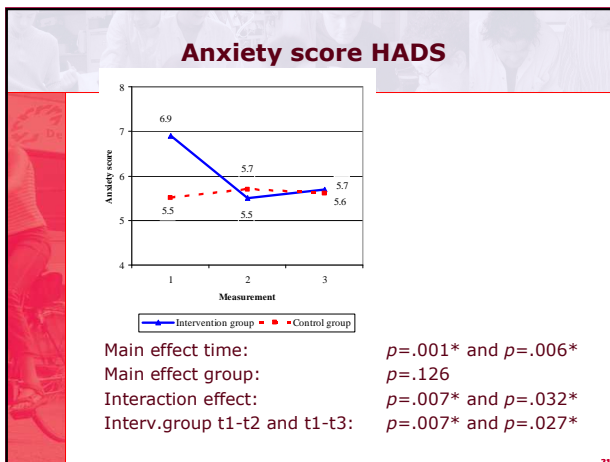
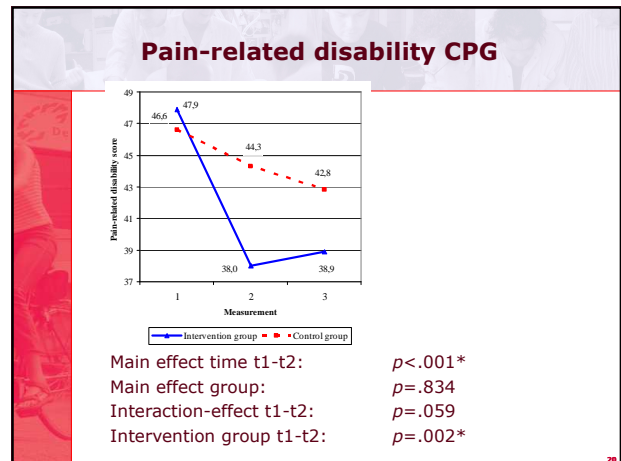
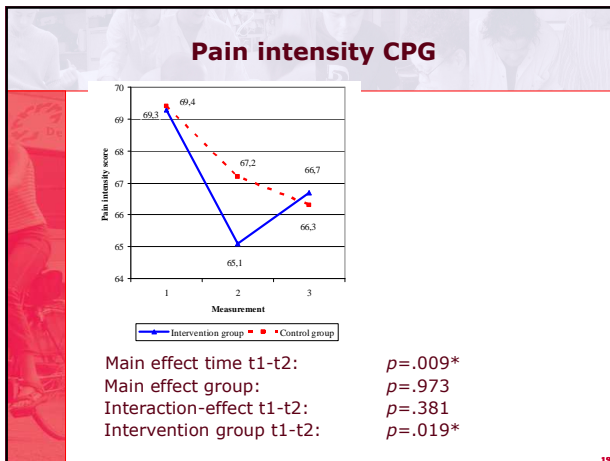
Papers (2)

- ▶ Heutink M, Post MWM, Bongers-Janssen HMH, Dijkstra CA, Snoek GJ, Spijkerman DCM, Lindeman E. **The CONECSI trial: A randomized controlled trial of a multidisciplinary cognitive behavioral program for coping with chronic neuropathic pain following spinal cord injury.** *Pain* (submitted).
- ▶ Heutink M, Post M, Overdulve C, Pfenning L, Schors H, van de Vis W, Vrijens N, Lindeman, E. **Pain coping and cognitions influence outcomes of a cognitive-behavioral intervention for neuropathic spinal cord injury pain.** Intended journal: *Rehabilitation Psychology.*
- ▶ Heutink M, Post M, Luthart P, Schuitemaker M, Slangen S, Sweers S, Vlemmix L, Lindeman, E. **Long term effects of a multidisciplinary cognitive behavioral program for coping with chronic neuropathic spinal cord pain.**



Baseline data

	Intervention group	Control group
Age (years)	57.7	59.9
Men	67.7%	60.0%
Married/living together	80.6%	86.7%
Median time since SCI (years)	5.4	5.0
Traumatic	80.6%	63.3%
Tetraplegia	35.5%	26.6%
Complete SCI	51.7%	20.0%



- ### Rating by participants (1)
- **Tools:**
- No (0%)
 - Somewhat (75%)
 - Yes (25%)
- **Expectations:**
- Less than expected (25,0%)
 - As expected (66,7%)
 - Expectations exceeded (8,3%)

- ### Rating by participants (2)
- **Usefulness of the intervention**
- Not at all useful (0%)
 - Somewhat useful (45.8%)
 - Useful (50.0%)
 - Very useful (4.2%)
- **Main comments-suggestions**
- Length and frequency OK
 - Would recommend it to others
 - Would be useful to offer this earlier after SCI

Most useful elements

1) Sportworkshops	75%
2) Guest speaker on SCI pain	63%
3) Relaxation excercises	58%
4) Contact with peers	58%
5) Theory on movement and pain	58%
6) Theory on pain, mood and stress	54%
7) Theory set limits (communication)	50%
8) Goal setting	50%
9) Guest speaker on chronic pain	42%
10) The ABC-method	38%
11) Guest speaker role model	33%
12) Theory on social aspects	33%
13) Bio-Psycho-Social-model	29%
14) Theory on exercise	29%
15) Homework	8%

Over-all rating

► Over-all rating (10 scale): **7.6** (N=24)

Rotterdam:	7.6 (n= 7)
Enschede:	7.4 (n= 7)
Utrecht:	7.4 (n= 4)
Hoensbroek:	8.0 (n= 6)

Conclusions

- Effectiveness: mixed results, not very firm evidence
- But some positive effects were seen
 - 21% decrease in pain-related disability
 - Treatment effect on anxiety and participation
- Secondary analyses are ongoing
 - Baseline levels of pain
 - Baseline levels and change of pain coping and cognitions
 - Long term effects (12 months)
- Larger study might prove effectiveness of the intervention

Collaborators

De Hoogstraat, Utrecht:

L. Pfenning
P. Luthart
F. van Asbeck & C. Dijkstra
M. Heutink
M. Post
E. Lindeman



Het Roessingh, Enschede:

W. van de Vis
M. Schuitemaker
G. Snoek & A. Nene



Rijndam, Rotterdam:

H. Schors & N. Vrijens
L. Vlemmix & J. Sweers
D. Spijkerman



Adelante, Hoensbroek:

C. Overdulve
S. Slangen
H. Bongers & N. Zusterzeel



Dwarslaesie Organisatie Nederland
(patient organization)



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Questions/remarks?

► M.Heutink(at)dehoogstraat.nl

