NKR 30 PICO 2 Superviseret øvelsesterapi

Review information

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What's new

Date / Event	Description

History

Date / Event	Description

Characteristics of studies

Characteristics of included studies

Albert 2012

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Superviserede øvelser + vanlig behandling Vanlig behandling sekundær behandling **Included criteria:** Patients were included if they were 18 to 65 years of age and had radicular pain of dermatomal distribution to the knee or below in 1 or both legs, had leg pain more than 3 on a 1- to 10-point scale at first visit to the clinic, and had a duration of sciatica between 2 weeks and 1 year. **Excluded criteria:** Patients were excluded if they had cauda equina syndrome, pending worker's litigation, previous back surgery, spinal tumors, pregnancy, a language other than Danish as their first language, or an inability to follow the rehabilitation protocol due to concomitant disease such as depression or heart failure.
Interventions	**Intervention Characteristics** Superviserede øvelser + vanlig behandling ● *behandling*: Symptom-Guided Exercises: back-related exercises: directional end-range exercises and postural instructions guided by the individual patient's directional preference (based on the McKenzie method of assessing pain-related physical impairment). Furthermore, these patients were instructed in stabilizing exercises for the transverse abdominis and multifi dus muscles and dynamic exercises for the outer layers of the abdominal wall and back extensors. Vanlig behandling

	● *behandling*: Sham Exercises/Placebo: Sham exercises consisted of optional exercises that were not back related but were low-dose exercises to simulate an increase in systemic blood circulation. Information, medication and home exercise sekundær behandling ● *behandling*:
Outcomes	*bensmerte* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] ● **Reporting**: Partially reported *rygsmerte* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] ● **Direction**: Lower is better *Funktionsscore* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Arbejdsevne, dage sygemeldt (op til 6 mdr)* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Smertehåndtering* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Neurologiske udfald, kort tid* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Kort tid, op til 12 uger", "Lang tid (kun operation)"] *Drop out, kort tid* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Kort tid, op til 12 uger", "Lang tid (kun operation)"]

	Lumbal operation ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Kort tid, op til 12 uger", "Lang tid (kun operation)"] *back to work, (12 week)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["end of treatment"]
Identification	**Sponsorship source:** Federal, institutional and foundation funds without specifying which **Country:** Denmark **Setting:** Hospital, outpatient clinic **Comments:** Participants could have longer duration of pain than 3 month **Authors name:** Albert H.B., Manniche C **Institution:** Back Research Centre, Funen, University of Southern Denmark, Ringe, Denmark **Email:** hanne.birgit.albert@slb.regionsyddanmark.dk **Address:** Lindevej 5, DK-5750, Ringe, Denmark
Notes	*Birgitte Holm Petersen* on 10/08/2015 18:30 **Continuous Outcomes** this study reported medians and IQR the main outcome (RMQ)Sick leave is at one year. *Thorvaldur Skuli Palsson* on 11/08/2015 05:38 **Study Design** Jeg kan ikke se at kontrol gruppen fik noget som kan betragtes som vanlig behandling. Jeg kan ikke se hvad falder under sekundær behandling *Thorvaldur Skuli Palsson* on 18/08/2015 05:10 **Baseline Characteristics** Skal man ikke indsætte baseline værdirne ind i en tabel her? *Thorvaldur Skuli Palsson* on 18/08/2015 05:13 **Continuous Outcomes** Funktionsscore = median + IQR. Ikke muligt at sætte bindestreg mellem nedre og øvre grænse og derfor betyder 2.12 = 2-12Empty spaces indicate missing information in text

	Thorvaldur Skuli Palsson on 18/08/2015 05:29 **Dichotomous Outcomes** In total, 6 patients were referred to a surgical physician but it is unclear whether they were operated. unclear whether they were referred because of development of neurological deficits or due to other reasons

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Judgement Comment: After enrollment, nonstratified randomization was performedby a research assistant using the random number generatorprogram Minimizer.
Allocation concealment	Low risk	Judgement Comment: Because blinding of the patients was not possible, it wasimportant that both treatment regimens were equally crediblefor the patients. There was considerable emphasis on getting patient understanding of the rationale for both treatments.
Blinding of participants and personnel All outcomes	Unclear risk	
Blinding of participants and personnel Patients	High risk	Judgement Comment: Patients knew what treatment they had
Blinding of participants and personnel Assessors	Low risk	Judgement Comment: A blinded observer performed a thorough physical examination,and a history was obtained. The patient self-completedall the study questionnaires.
Blinding of participants and personnel Patienter blinded til intervention	High risk	Judgement Comment: Because blinding of the patients was not possible, it wasimportant that both treatment regimens were equally crediblefor the patients.

Blinding of participants and personnel Personnel	High risk	Judgement Comment: Blinding of the treatment providers was impossible, so itwas important to make the treatment credible and to encouragethe clinicians' enthusiasm so that they would promotetheir own treatment.
Blinding of outcome assessors All outcomes	Low risk	Judgement Comment: Patient reported outcomes via questionnaires, physical examinations by blinded assessor Patient reported outcomes via questionnaires, physical examinations by blinded assessor
Blinding of outcome assessors Assessors	Low risk	Judgement Comment: The medical history and a thorough physical examination ofthe spine and lower extremities were undertaken by the sameblinded observer at the baseline, 8 weeks after, at the end oftreatment, and 1 year after the end of treatment
Incomplete outcome data All outcomes	Low risk	Judgement Comment: 8 patienter blev eksluderet ved inklusion og yderligere 6 efter behandling startede pga forværreing af symptomer. Seks deltagere droppede ud af studiet undervejs eller ved follow-up ved afslutning og yderligere 4 droppede ud ved 1 års follow-up
Incomplete outcome data Ability to work	Unclear risk	
Incomplete outcome data Number of back operations caused by radiculopathy	Unclear risk	
Incomplete outcome data Dropout from study (first 12 weeks)	Unclear risk	
Incomplete outcome data Neurologic impairment (short-term)	Unclear risk	
Incomplete outcome data Pain management (short term)	Unclear risk	
Incomplete outcome data Disability (long term)	Unclear risk	
Incomplete outcome data Back pain	Unclear risk	
Incomplete outcome data Leg pain	Unclear risk	

Selective outcome reporting	Low risk	Judgement Comment: Main and secondary outcome measures were listed in the methods section and reported of in results
Other sources of bias	Low risk	Judgement Comment: I do not see any

Bakhtiary 2005

Methods	
Participants	
Interventions	
Outcomes	
Identification	
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Unclear risk	
Allocation concealment	Unclear risk	
Blinding of participants and personnel All outcomes	Unclear risk	
Blinding of participants and personnel Patients	Unclear risk	
Blinding of participants and personnel Assessors	Unclear risk	
Blinding of participants and personnel Patienter blinded til intervention	Unclear risk	
Blinding of participants and personnel Personnel	Unclear risk	

Blinding of outcome assessors All outcomes	Unclear risk	
Blinding of outcome assessors Assessors	Unclear risk	
Incomplete outcome data All outcomes	Unclear risk	
Incomplete outcome data Ability to work	Unclear risk	
Incomplete outcome data Number of back operations caused by radiculopathy	Unclear risk	
Incomplete outcome data Dropout from study (first 12 weeks)	Unclear risk	
Incomplete outcome data Neurologic impairment (short-term)	Unclear risk	
Incomplete outcome data Pain management (short term)	Unclear risk	
Incomplete outcome data Disability (long term)	Unclear risk	
Incomplete outcome data Back pain	Unclear risk	
Incomplete outcome data Leg pain	Unclear risk	
Selective outcome reporting	Unclear risk	
Other sources of bias	Unclear risk	

Huber 2011

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Superviserede øvelser + vanlig behandling Vanlig behandling sekundær behandling Hvile Superviserede øvelser **Included criteria:** Males and females with the first episode of right sciatica caused by herniated disc was the only inclusion criterion **Excluded criteria:** Other reasons forthe low back pain excluded patients from this projectDiseases other than right disc herniation excludedpatients from the study
Interventions	**Intervention Characteristics** Superviserede øvelser + vanlig behandling ● *behandling*: supervised isometric exercise for 20 days Vanlig behandling ● *behandling*: reduce physical activity and loading of spine sekundær behandling ● *behandling*: Hvile ● *behandling*: Superviserede øvelser ● *behandling*:

Outcomes	*bensmerte* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *rygsmerte* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Funktionsscore* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Arbejdsevne, dage sygemeldt (op til 6 mdr)* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Smertehåndtering* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Neurologiske udfald, kort tid* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Kort tid, op til 12 uger", "Lang tid (kun operation)"] *Drop out, kort tid* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Kort tid, op til 12 uger", "Lang tid (kun operation)"] *Lumbal operation* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Kort tid, op til 12 uger", "Lang tid (kun operation)"] *back to work, (12 week)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["end of treatment"]

Identification	**Sponsorship source:** None declared **Country:** Poland **Setting:** Clinical Orthopedic and Rehabilitation Hospital (outpatient ward) **Comments:** **Authors name:** Juliusz Huber **Institution:** Department of Pathophysiology of Locomotor Organs, Karol Marcinkowski Medical University **Email:** zpnr@wp.pl **Address:** Department of Pathophysiologyof Locomotor Organs, Wiktor Dega Clinical Orthopaedicand Rehabilitation Hospital, Karol Marcinkowski Universityof Medicine, 28 Czerwca 1956r. No 135/147, 61-545, Poznan,Poland
Notes	*Birgitte Holm Petersen* on 25/08/2015 18:23 **Continuous Outcomes** hard to define follow up time: apparently 20 days after the rehab programme - eg. short termpain was measured on a 0-10 VAS it is not specified if it was back or leg. In this patient group, I would assume leg

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Unclear risk	Judgement Comment: randomisation procedure not accounted for
Allocation concealment	High risk	Judgement Comment: Patients in the training group got a 20 day supervised exercise program while the other group was ordered to reduce physical activity and frequent loading of the spine. This causes an attention bias where one group is gets more attention from the research personel than the other
Blinding of participants and personnel All outcomes	High risk	Judgement Comment: The assessors where blinded to which group the participants where in but the subjects in each group and the therapists administering the treatment where not blinded
Blinding of participants and personnel Patients	Unclear risk	

Blinding of participants and personnel Assessors	Unclear risk	
Blinding of participants and personnel Patienter blinded til intervention	Unclear risk	
Blinding of participants and personnel Personnel	Unclear risk	
Blinding of outcome assessors All outcomes	Low risk	Judgement Comment: all examination by same blinded doctor
Blinding of outcome assessors Assessors	Unclear risk	
Incomplete outcome data All outcomes	Unclear risk	Judgement Comment: not reported for drop outs (there were none)
Incomplete outcome data Ability to work	Unclear risk	Judgement Comment: Return to work was not an outcome measure in this study
Incomplete outcome data Number of back operations caused by radiculopathy	Unclear risk	Judgement Comment: Not reported
Incomplete outcome data Dropout from study (first 12 weeks)	Unclear risk	Judgement Comment: no dropouts were reported of and the results indicate a full dataset from both groups - flow not reported
Incomplete outcome data Neurologic impairment (short-term)	Unclear risk	Judgement Comment: The activity of trunk and lower extremity muscles was assessed at baseline and post intervention. An improvement was reported of in the exercise group. No direct measurements were done on nerve conductivity but this was done directly by assessing muscle function as both time points during MVC. However, muscle activity may be inhibited by pain and therefore difficult to speculate on to what extent the findings are related to weakness due to compromized nerve function
Incomplete outcome data Pain management (short term)	Unclear risk	Judgement Comment: How well the participants managed their pain was not an outcome measure in this study

Incomplete outcome data Disability (long term)	Unclear risk	Judgement Comment: Disability was not an outcome measure in this study
Incomplete outcome data Disability (long term)	Unclear risk	Judgement Comment: Disability was not an outcome measure in this study
Incomplete outcome data Back pain	Unclear risk	Judgement Comment: Pain intensity is reported without differentiating between low back and leg pain
Incomplete outcome data Leg pain	Unclear risk	Judgement Comment: Only pain intensity was measured without differentiating between leg and back pain
Selective outcome reporting	Unclear risk	Judgement Comment: not known as there was no protocol. Pain is relevant though
Other sources of bias	Low risk	

Luijsterburg 2008

Methods	**Study design:** Randomized controlled trial **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Superviserede øvelser + vanlig behandling Vanlig behandling sekundær behandling **Included criteria:** Radiating (pain) complaints in the leg below the kneeSeverity of complaints scored above 3 on an 11-point NRS(0 = no complaints; 10 = maximum complaints)Duration of the (pain) complaints\6 weeksAge between 18 and 65 yearsAble to speak and read DutchPresence of one of the following symptomsMore pain on coughing, sneezing or strainingDecreased muscle strength in the legSensory deficits in the legDecreased reflex activity in the legPositive straight leg raising test **Excluded criteria:** Radiating (pain) complaints in the preceding 6 monthsBack surgery in the past 3 yearsTreated with epidural injectionsPregnancyCo-morbidity that determines overall well-beingDirect indication for surgery (unbearable pain,fast progression of paresis or cauda equina syndrome)Expected loss to follow-up (i.e. moving to another part of the country, long-lasting foreign holiday)

Interventions	**Intervention Characteristics** Superviserede øvelser + vanlig behandling ● *behandling*: Physical therapy treatment consists of exercise therapy as well as giving information and advice about LRS. Passivemodalities such as massage and manipulation techniques, or applications such as ultrasound therapy or electrotherapywere not allowed. Vanlig behandling ● *behandling*: All patients were treated by the GP according to their clinical guideline. GPs gave information and advice about LRS and, if necessary, prescribed (pain) medication. sekundær behandling ● *behandling*:
Outcomes	*bensmerte* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *rygsmerte* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Funktionsscore* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Arbejdsevne, dage sygemeldt (op til 6 mdr)* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Smertehåndtering* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Neurologiske udfald, kort tid* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Kort tid, op til 12 uger", "Lang tid (kun operation)"]

	Drop out, kort tid ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Kort tid, op til 12 uger", "Lang tid (kun operation)"] *Lumbal operation* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Kort tid, op til 12 uger", "Lang tid (kun operation)"] *back to work, (12 week)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["end of treatment"]
Identification	**Sponsorship source:** This trial was funded by the Dutch Health Care Insurance Board (CvZ) **Country:** The Netherlands **Setting:** GP clinics and physiotherapy clinics **Comments:** **Authors name:** Pim A. J. Luijsterburg **Institution:** Department of General Practice, Erasmus **Email:** pimluijsterburg@home.nl **Address:** Department of General Practice, Erasmus MC, PO Box 2040,3000 CA Rotterdam, The Netherlands
Notes	*Birgitte Holm Petersen* on 25/08/2015 16:40 **Continuous Outcomes** change scores mean and SDsix weeks som kort tid12 uger som lang tidarbejdsevne samme 12 uger som kort tid og 52 uger som lang tid. *Birgitte Holm Petersen* on 25/08/2015 17:32 **Dichotomous Outcomes** after 12 weeks, 12 patients in the GP group had physiotherapy

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Judgement Comment: A concealed randomisation procedure was used, which was based on a computer-generated randomisation list developed by an independent person
Allocation concealment	Low risk	Quote: "Concealment was ensured because patients' unique trial number was typed in a special database, which was not editable for the research assistant and a second randomisation action using the same trial number was not possible." Judgement Comment: Concealment was ensured because patients' unique trial number was typed in a special database, which was not editable for the research assistant and a second randomisation action using the same trial number was not possible.
Blinding of participants and personnel All outcomes	High risk	Quote: "For obvious reasons the GPs, physical therapists and patients were not blinded for treatment allocation. The statistical analysis and interpretation of the findings was audited and verified by an independent statistician." Judgement Comment: For obvious reasons the GPs, physical therapists and patients were not blinded for treatment allocation. The statistical analysis and interpretation of the findings was audited and verified by an independent statistician.
Blinding of participants and personnel Patients	Unclear risk	
Blinding of participants and personnel Assessors	Unclear risk	
Blinding of participants and personnel Patienter blinded til intervention	Unclear risk	
Blinding of participants and personnel Personnel	Unclear risk	

Blinding of outcome assessors All outcomes	Unclear risk	Judgement Comment: it is not reported who did the outcome measures, but most are selfreported
Blinding of outcome assessors Assessors	Unclear risk	
Incomplete outcome data All outcomes	Low risk	Judgement Comment: Missing questionnaire data was reported of in both treatment arms at 3, 6, 12 & 52 weeks follow up where an intention-treat analysis was used to account for missing data. No
Incomplete outcome data Ability to work	Unclear risk	
Incomplete outcome data Number of back operations caused by radiculopathy	Unclear risk	
Incomplete outcome data Dropout from study (first 12 weeks)	Unclear risk	
Incomplete outcome data Neurologic impairment (short-term)	Unclear risk	
Incomplete outcome data Pain management (short term)	Unclear risk	
Incomplete outcome data Disability (long term)	Unclear risk	
Incomplete outcome data Back pain	Unclear risk	
Incomplete outcome data Leg pain	Unclear risk	
Selective outcome reporting	Low risk	Judgement Comment: A study protocol was published and the reporting adhere to the protocol
Other sources of bias	High risk	Judgement Comment: According to the flow chart, 12 subjects from GP care group and 1 from the GP + PT group got the wrong intervention but it is not stated whether these persons where excluded from further participation. However, from the flow chart they seem to have remained in the

Paatelma 2008

Methods	**Study design:** **Study grouping:** Parallel group **Open Label:** **Cluster RCT:**
Participants	**Baseline Characteristics** Superviserede øvelser + vanlig behandling Vanlig behandling sekundær behandling **Included criteria:** 18–65-year-old employed people with current non-specific LBP with or without radiating pain to one or both lower legs. The back pain episode could be acute to chronic, the first or recurrent. **Excluded criteria:** Pregnancy, low back surgery less than 2 months previously, and “red flags” that indicate serious spinal pathology
Interventions	**Intervention Characteristics** Superviserede øvelser + vanlig behandling ● *behandling*: the participants were clinically assessed and classified into the mechanical syndromes. If a non-mechanical syndromewas present, the subjects were transferred from conservative care for further investigations. If a syndrome was present, then one of the treatment principles of mechanical therapy was selected as the managementstrategy. This consisted of an educational component, supported with the book Treat Your Own Back , and an active therapy component provided instructions in exercises repeated several times a day according to the principles of the approach (10–15 repetitions every 1–2 h with or without a sustained end-range position on a regular basis Vanlig behandling ● *behandling*: Subjects in the advice-only group received 45–60 mincounselling from a physiotherapist concerning the good prognosis for LBP and concerning pain tolerance, medication, and early return to work. The patients in this group were told to avoid bed rest and advised to continue their routine as actively as possible, including exercise activities, within the limits permitted by their back pain. They were also instructed to contact their physicians if their symptoms worsened. For support, a 2-page educational back booklet was also supplied. Other treatments during follow-up were minimal, with no differences between groups. sekundær behandling

	● *behandling*: The OMT group underwent spinal manipulationif indicated (11), specific mobilization, and muscle-stretchingtechniques (12, 13). In addition, the following mobilization or high velocity,low-force manipulation techniques were performed: (i) translatoricthrust manipulation or mobilization of the thoracic-lumbar junction withthe patient supine or lying on their side; (ii) translatoric thrust manipulationor mobilization of L1 to L5 with the patient prone or lying on theirside; (iii) the sacroiliac manipulation/mobilization technique used in thisstudy was a ventral or dorsal gliding of the ileum on the sacrum with thepatient prone. Furthermore, these patients were taught to perform selfmobilizationand stretching exercises at home once a day. Usually 3–5individually selected home-exercises were prescribed to actively mobilizethe low back, with 2–3 sets of 15–20 repetitions for each exercise, andlumbar stabilization exercises with 10 repetitions of 10 sec, and stretchingexercises to be performed once a day for 45–60 sec.
Outcomes	*bensmerte* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *rygsmerte* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Funktionsscore* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Arbejdsevne, dage sygemeldt (op til 6 mdr)* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Smertehåndtering* ● **Outcome type**: ContinuousOutcome ● **Measure names**: ["Kort tid (op til 12 uger)", "Lang tid 3-6 måneder"] *Neurologiske udfald, kort tid* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Kort tid, op til 12 uger", "Lang tid (kun operation)"] *Drop out, kort tid*

	● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Kort tid, op til 12 uger", "Lang tid (kun operation)"] *Lumbal operation* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["Kort tid, op til 12 uger", "Lang tid (kun operation)"] *back to work, (12 week)* ● **Outcome type**: DichotomousOutcome ● **Measure names**: ["end of treatment"]
Identification	**Sponsorship source:** None declared **Country:** Finland **Setting:** Physiotherapy clinics **Comments:** **Authors name:** Markku Paatelma **Institution:** Department of Health Sciences, University of Jyväskylä **Email:** markku.paatelma@tcr.fi **Address:** Härkälahdenkuja 9,FI-00850 Helsinki, Finland
Notes	*Thorvaldur Skuli Palsson* on 19/08/2015 19:01 **Intervention Characteristics** Superviserede øvelser + vanlig behandling = McKenzie, Vanlig behandling = advice only, Sekundær behandling = OMT *Thorvaldur Skuli Palsson* on 19/08/2015 19:02 **Continuous Outcomes** Median + IQR *Birgitte Holm Petersen* on 20/08/2015 20:14 **Continuous Outcomes** reported as medians with IQR (writing a range in the field result a construction of artificial numberben og rygsmerte på 100mm VASfunktions skore på Roland Morris Disability Questionnaire

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Low risk	Judgement Comment: Randomization of the participants into the treatment groups was bya stack of sealed envelopes, numbered in an order prepared from arandom number table.
Allocation concealment	Unclear risk	Judgement Comment: cannot see how this was done
Blinding of participants and personnel All outcomes	High risk	Judgement Comment: Those providing and receiving treatment were not blinded to intervention
Blinding of participants and personnel Patients	Unclear risk	
Blinding of participants and personnel Assessors	Unclear risk	
Blinding of participants and personnel Patienter blinded til intervention	Unclear risk	
Blinding of participants and personnel Personnel	Unclear risk	
Blinding of outcome assessors All outcomes	Low risk	Judgement Comment: Outcome measures, which included a battery of self-reportedmeasures (use of healthcare services due to other problems and other back pain treatments) were assessed at 3-, 6-, and 12-month visits. The measurements were made by one research assistant and coded by another who was blinded to the patient’s group assignment.
Blinding of outcome assessors Assessors	Unclear risk	

Incomplete outcome data All outcomes	Low risk	Judgement Comment: All outcome measures specified in the methods section were reported of in the results
Incomplete outcome data Ability to work	Unclear risk	
Incomplete outcome data Number of back operations caused by radiculopathy	Unclear risk	
Incomplete outcome data Dropout from study (first 12 weeks)	Unclear risk	
Incomplete outcome data Neurologic impairment (short-term)	Unclear risk	
Incomplete outcome data Pain management (short term)	Unclear risk	
Incomplete outcome data Disability (long term)	Unclear risk	
Incomplete outcome data Back pain	Unclear risk	
Incomplete outcome data Leg pain	Unclear risk	
Selective outcome reporting	Low risk	Judgement Comment: standard outcomes reported as recommend by CONSORT and the Cochrane back group
Other sources of bias	High risk	Judgement Comment: Confrontaion bias - subjects in the advice only group only got one session with a physiotherapist while the other groups got 3 -7 sessions of supervised exercise/treatment Mixed patient group can disguise different respoenses to the treatments.

Ye 2015

Methods	
Participants	
Interventions	
Outcomes	
Identification	
Notes	

Risk of bias table

Bias	Authors' judgement	Support for judgement
Sequence Generation	Unclear risk	
Allocation concealment	Unclear risk	
Blinding of participants and personnel All outcomes	Unclear risk	
Blinding of participants and personnel Patients	Unclear risk	
Blinding of participants and personnel Assessors	Unclear risk	
Blinding of participants and personnel Patienter blinded til intervention	Unclear risk	
Blinding of participants and personnel Personnel	Unclear risk	
Blinding of outcome assessors All outcomes	Unclear risk	

Blinding of outcome assessors Assessors	Unclear risk	
Incomplete outcome data All outcomes	Unclear risk	
Incomplete outcome data Ability to work	Unclear risk	
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Incomplete outcome data Pain management (short term)	Unclear risk	
Incomplete outcome data Disability (long term)	Unclear risk	
Incomplete outcome data Back pain	Unclear risk	
Incomplete outcome data Leg pain	Unclear risk	
Selective outcome reporting	Unclear risk	
Other sources of bias	Unclear risk	

Footnotes

Characteristics of excluded studies

Ahmed 2013

Reason for exclusion	Wrong intervention

Ali 2015

Reason for exclusion	Wrong patient population

Bronfort 2014

Reason for exclusion	Wrong intervention

Browder 2007

Reason for exclusion	Wrong patient population

Choi 2005

Reason for exclusion	Wrong patient population

Hahne 2013

Reason for exclusion	Wrong study design

Hofstee 2003

Reason for exclusion	Wrong intervention

Horng 2007

Reason for exclusion	Wrong intervention

Javadian 2012

Reason for exclusion	Wrong patient population

JoseDíaz Arribas 2015

Reason for exclusion	Wrong patient population

Kumar 2011

Reason for exclusion	Wrong patient population

Lewis 2011

Reason for exclusion	Wrong patient population

Puntumetakul 2013

Reason for exclusion	Wrong patient population

Radziszewski 2007

Reason for exclusion	Wrong study design

Schafer 2011

Reason for exclusion	Wrong study design

Weinstein 2006

Reason for exclusion	Wrong study design

Yuan 2013

Reason for exclusion	Wrong intervention

Footnotes

Characteristics of studies awaiting classification

Footnotes

Characteristics of ongoing studies

Footnotes

Summary of findings tables

Additional tables

References to studies

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Studies awaiting classification

Ongoing studies

Other references

Additional references

Other published versions of this review

Data and analyses

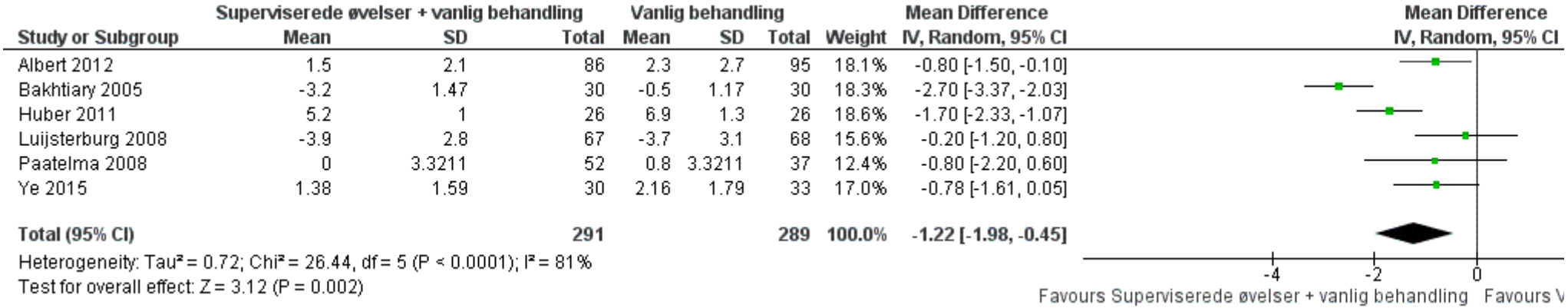
1 Superviserede øvelser + vanlig behandling vs Vanlig behandling

Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.1 Bensmerte (op til 12 uger)	6	580	Mean Difference (IV, Random, 95% CI)	-1.22 [-1.98, -0.45]
1.2 Rygsmerte (op til 12 uger)	3	287	Mean Difference (IV, Random, 95% CI)	-0.56 [-1.09, -0.02]
1.3 Funktionsevne (op til 12 uger)	4	457	Std. Mean Difference (IV, Random, 95% CI)	0.01 [-0.17, 0.20]
1.4 Funktionsevne (3-12 md)	4	457	Std. Mean Difference (IV, Random, 95% CI)	-0.30 [-0.62, 0.02]
1.5 Arbejdsevne, dage sygemeldt (op til 12 md)	2	117	Std. Mean Difference (IV, Random, 95% CI)	-0.18 [-0.55, 0.18]
1.6 Smertehåndtering	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable
1.7 Neurologiske udfald, kort tid	2	244	Risk Ratio (IV, Random, 95% CI)	0.22 [0.03, 1.85]
1.8 Drop out, kort tid	4	468	Risk Ratio (IV, Random, 95% CI)	0.37 [0.18, 0.79]

1.9 Lumbal operation	4	468	Risk Ratio (IV, Random, 95% CI)	1.00 [0.27, 3.77]
1.10 back to work, (12 week)	0		Risk Ratio (IV, Fixed, 95% CI)	No totals

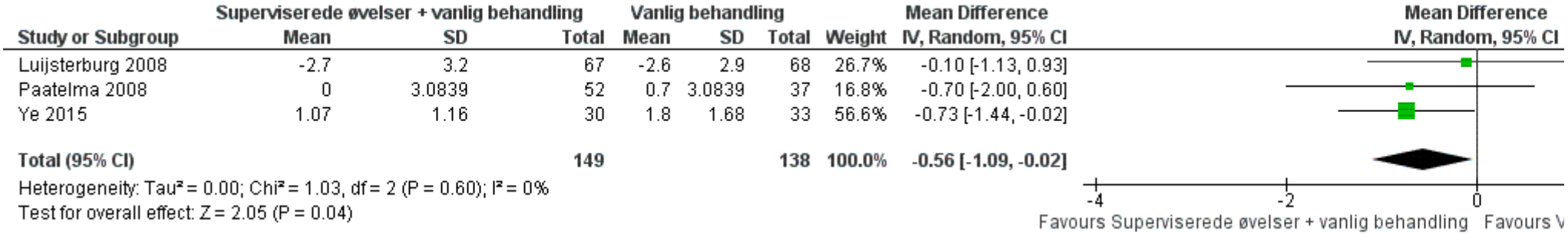
Figures

Figure 1 (Analysis 1.1)



Forest plot of comparison: 1 Superviserede øvelser + vanlig behandling vs Vanlig behandling, outcome: 1.1 Bensmerte (op til 12 uger).

Figure 2 (Analysis 1.2)

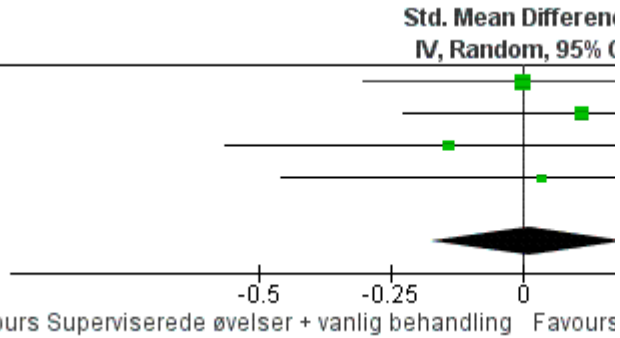


Forest plot of comparison: 1 Superviserede øvelser + vanlig behandling vs Vanlig behandling, outcome: 1.2 Rygsmerte (op til 12 uger).

Figure 3 (Analysis 1.3)

Study or Subgroup	Superviserede øvelser + vanlig behandling Mean	SD	Total	Vanlig behandling Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
Albert 2012	6	7.4	83	6	7.4	87	37.4%	0.00 [-0.30, 0.30]
Luijsterburg 2008	-7.7	7.3	67	-8.5	6.7	68	29.7%	0.11 [-0.22, 0.45]
Paatelma 2008	0	7.1167	52	1	7.1167	37	19.0%	-0.14 [-0.56, 0.28]
Ye 2015	29.83	11.293	30	29.38	12.563	33	13.8%	0.04 [-0.46, 0.53]
Total (95% CI)			**232**			**225**	**100.0%**	**0.01 [-0.17, 0.20]**

Heterogeneity: Tau² = 0.00; Chi² = 0.86, df = 3 (P = 0.84); I² = 0%
Test for overall effect: Z = 0.13 (P = 0.90)

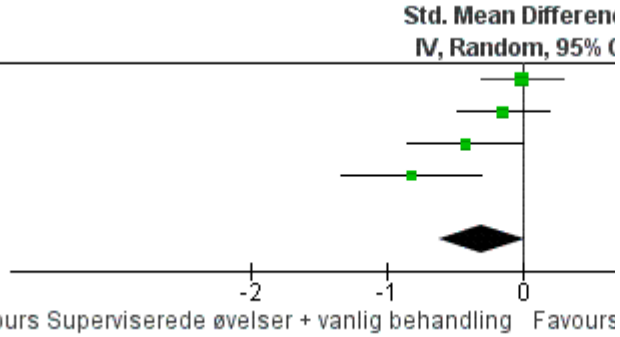


Forest plot of comparison: 1 Superviserede øvelser + vanlig behandling vs Vanlig behandling, outcome: 1.3 Funktionsevne (op til 12 uger).

Figure 4 (Analysis 1.4)

Study or Subgroup	Superviserede øvelser + vanlig behandling Mean	SD	Total	Vanlig behandling Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
Albert 2012	3.5	6.67	83	3.5	6.67	87	29.5%	0.00 [-0.30, 0.30]
Luijsterburg 2008	-10	6.5	67	-9.1	6.1	68	27.6%	-0.14 [-0.48, 0.20]
Paatelma 2008	0	7.1167	52	3	7.1167	37	23.3%	-0.42 [-0.84, 0.01]
Ye 2015	9.28	4.99	30	16	10.11	33	19.5%	-0.82 [-1.34, -0.30]
Total (95% CI)			**232**			**225**	**100.0%**	**-0.30 [-0.62, 0.02]**

Heterogeneity: Tau² = 0.07; Chi² = 8.28, df = 3 (P = 0.04); I² = 64%
Test for overall effect: Z = 1.82 (P = 0.07)

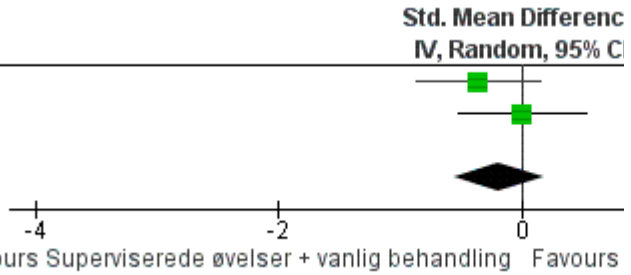


Forest plot of comparison: 1 Superviserede øvelser + vanlig behandling vs Vanlig behandling, outcome: 1.4 Funktionsevne (3-12 md).

Figure 5 (Analysis 1.5)

Study or Subgroup	Superviserede øvelser + vanlig behandling Mean	SD	Total	Vanlig behandling Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
Albert 2012	73	79	29	107	107	33	52.7%	-0.35 [-0.86, 0.15]
Luijsterburg 2008	29.2	48.4	30	28.9	72.3	25	47.3%	0.00 [-0.53, 0.54]
Total (95% CI)			**59**			**58**	**100.0%**	**-0.18 [-0.55, 0.18]**

Heterogeneity: Tau² = 0.00; Chi² = 0.92, df = 1 (P = 0.34); I² = 0%
Test for overall effect: Z = 0.99 (P = 0.32)

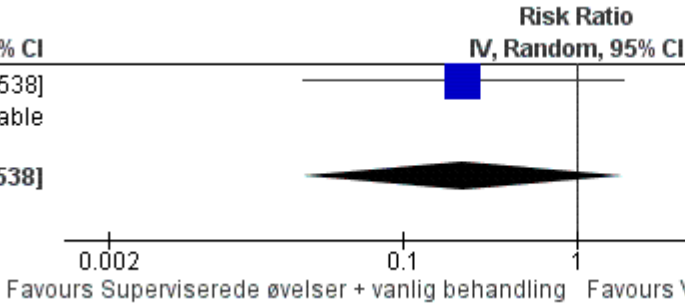


Forest plot of comparison: 1 Superviserede øvelser + vanlig behandling vs Vanlig behandling, outcome: 1.5 Arbejdsevne, dage sygemeldt (op til 12 md).

Figure 6 (Analysis 1.7)

Study or Subgroup	Superviserede øvelser + vanlig behandling Events	Total	Vanlig behandling Events	Total	Weight	Risk Ratio IV, Random, 95% CI
Albert 2012	1	86	5	95	100.0%	0.2209 [0.0263, 1.8538]
Ye 2015	0	30	0	33		Not estimable
Total (95% CI)		**116**		**128**	**100.0%**	**0.2209 [0.0263, 1.8538]**
Total events	1		5			

Heterogeneity: Not applicable
Test for overall effect: Z = 1.39 (P = 0.16)

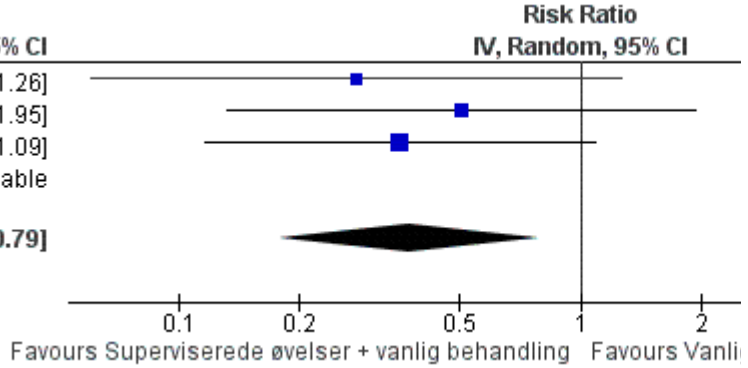


Forest plot of comparison: 1 Superviserede øvelser + vanlig behandling vs Vanlig behandling, outcome: 1.7 Neurologiske udfald, kort tid.

Figure 7 (Analysis 1.8)

Study or Subgroup	Superviserede øvelser + vanlig behandling Events	Total	Vanlig behandling Events	Total	Weight	Risk Ratio IV, Random, 95% CI
Albert 2012	2	86	8	95	24.3%	0.28 [0.06, 1.26]
Luijsterburg 2008	3	67	6	68	31.1%	0.51 [0.13, 1.95]
Paatelma 2008	4	52	8	37	44.6%	0.36 [0.12, 1.09]
Ye 2015	0	30	0	33		Not estimable
Total (95% CI)		**235**		**233**	**100.0%**	**0.37 [0.18, 0.79]**
Total events	9		22			

Heterogeneity: Tau² = 0.00; Chi² = 0.36, df = 2 (P = 0.84); I² = 0%
Test for overall effect: Z = 2.57 (P = 0.01)

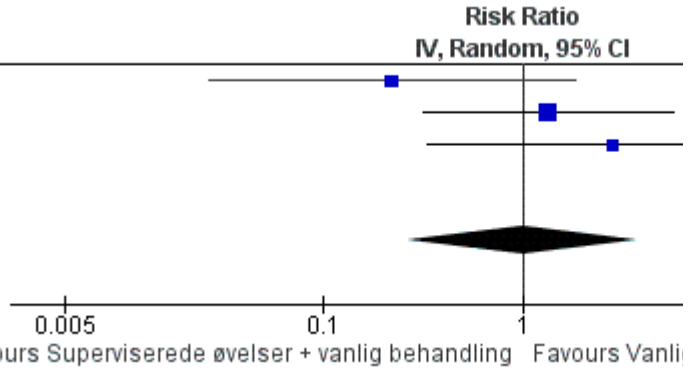


Forest plot of comparison: 1 Superviserede øvelser + vanlig behandling vs Vanlig behandling, outcome: 1.8 Drop out, kort tid.

Figure 8 (Analysis 1.9)

	Superviserede øvelser + vanlig behandling		Vanlig behandling			Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	IV, Random, 95% CI
Albert 2012	1	86	5	95	27.8%	0.22 [0.03, 1.85]
Luijsterburg 2008	4	67	3	68	44.8%	1.35 [0.31, 5.82]
Paatelma 2008	4	52	1	37	27.4%	2.85 [0.33, 24.44]
Ye 2015	0	30	0	33		Not estimable
Total (95% CI)		**235**		**233**	**100.0%**	**1.00 [0.27, 3.77]**
Total events	9		9			

Heterogeneity: Tau² = 0.47; Chi² = 3.00, df = 2 (P = 0.22); I² = 33%
Test for overall effect: Z = 0.00 (P = 1.00)



Forest plot of comparison: 1 Superviserede øvelser + vanlig behandling vs Vanlig behandling, outcome: 1.9 Lumbal operation.