Appendix 1: search strategy

Medline

1. Mesh descriptor: [Back Pain] explode all trees
2. dorsalgia/
3. backache
4.(neck OR cervical) adj1 pain → Mesh
5. exp Brachial Plexus Neuropaties
6. exp Lumbar Plexus Neuropaties
7. Neck Pain/
8. neckache
9. Torticollis/
10. whiplash.mp
11. cervicodynia.mp
12. spondylitis/ OR spondylosis/ OR spondylolysis/ OR spondylolysthesis
13.(lumbar OR dorsal OR neck OR cervical OR sciatica) adj2 (pain OR ache)
14. (lumbar OR dorsal OR neck OR cervical) adj2 (discitis OR disc adj 1 herniation OR disc adj1 herniation)
15. 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14
16. (PLACEBO* or MOCK* or SHAM* or FAKE* or VEHICLE* or DUMM* or ATTENTION* CONTROL* or PSEUDO* TREAT* or UN?SPECIFIC* or NON?SPECIFIC* OR simulat$ treatment OR inert agent)
17. Chiropractic/
18. Manipulation, Chiropractic/
19. chiropract$.tw.
20. (manual adj2 therap$).mp
21. spinal manipulation.mp. or Manipulation, Spinal/
22. osteopath$.tw.
23. Osteopathic Medicine/
24. Physical Therapy Modalities/ or “Physical Therapy (Specialty)”/ or physical therap$.tw. or physiotherap$.tw.
25. myotherapy.mp
26. shiatsu.mp
27.exp Therapeutic Touch/
28. exp Massage/
29. (neuromuscular adj therapy).mp
30. 17 OR 18 OR 19 OR 20 OR OR 21 OR 22 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 29
31. pain
32. range of motion
33. ROM
34. 31 OR 32 OR 33
35. Clinical Trial/
36. Randomized Controlled Trial/
37. controlled clinical trial/
38. exp RANDOMIZATION/
39. PLACEBO/
40. (random$ adj2 allocat$).tw.
41. single blind$.tw.

42. double blind$.tw.
43. placebo$.tw.
44. 35 OR 36 OR 37 OR 38 OR 39 OR 40 OR 41 OR 42 OR 43
45. animals/
46. humans/
47. 46 NOT 45
48. 15 AND 16 AND 30 AND 44 AND 47

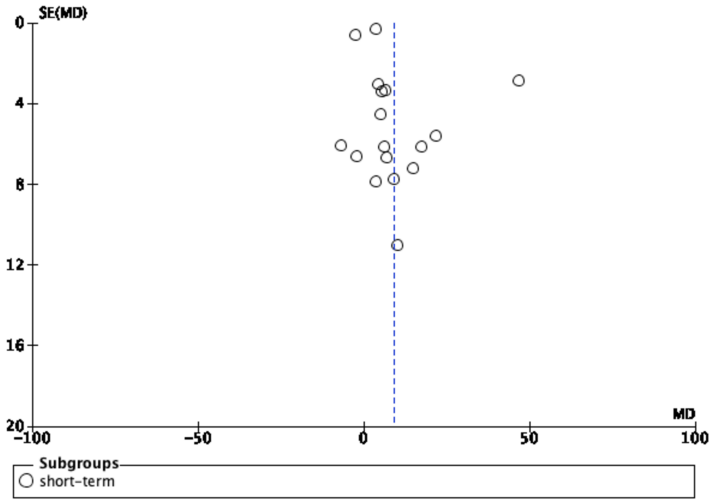
Appendix 2: data extraction form

Methods	**Trial Design** **Settings**
Participants	**Total number of participants:** **Age**: **Gender(M/F):** **BMI:** **Activity:** **Duration of the symptoms:** **Location of pain (**one-sided, double-sided, central, cervical, dorsal or lumbar)**:** **Cause of pain:** (e.g. disc herniation, contractures, aspecific pain) **Previous experience of the treatment provided:** Y/N/ N/A **Inclusion and exclusion Criteria:** **VAS:** **Practitioner characteristics**: (years of experience, gender)
Interventions	**Placebo:** **Comparator:**
Outcomes	**Outcomes used in the meta-analysis:** **Length of follow-up:**
Notes	**Difference between Placebo and active treatment:** **Placebo check for reliability:** **Adverse event:**

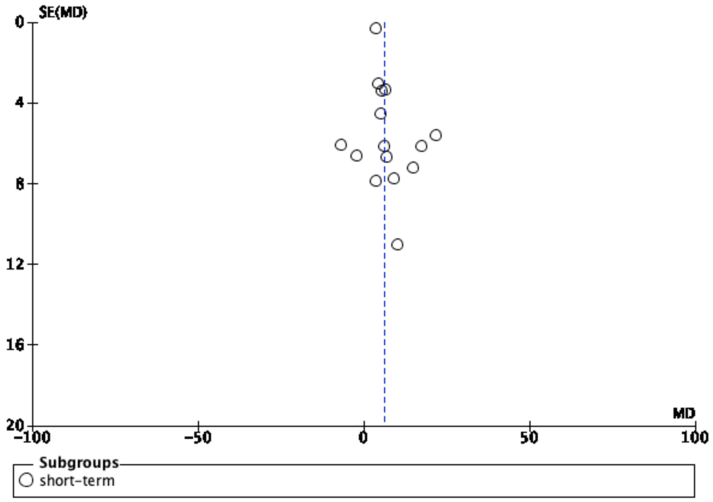
	Lost to follow-up: **Funding source:**

Appendix 3: funnel plot of pain outcome with the inclusion (A) and with the exclusion (B) of two studies of Erdogmus C and Krekoukias G.

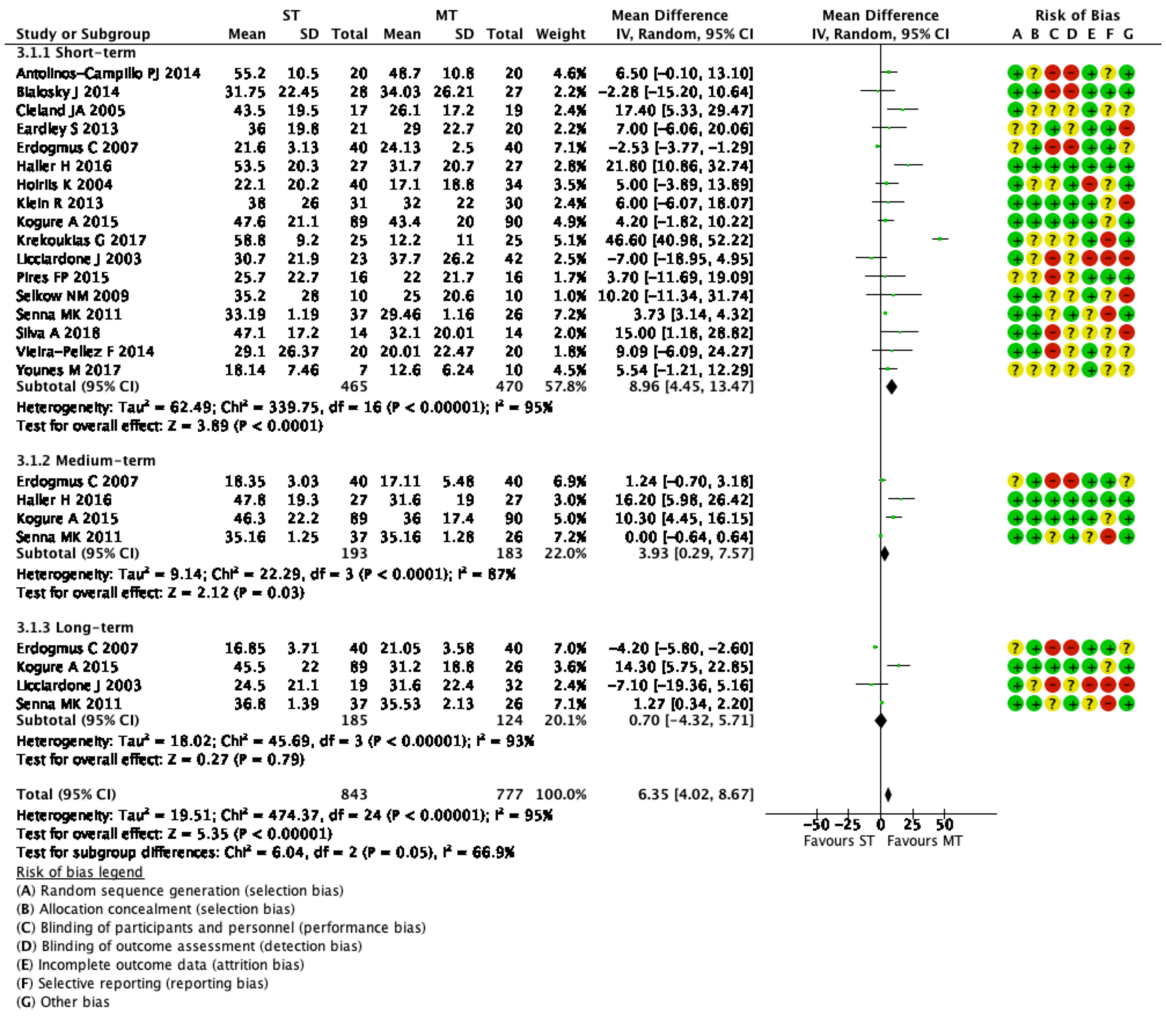
(A)



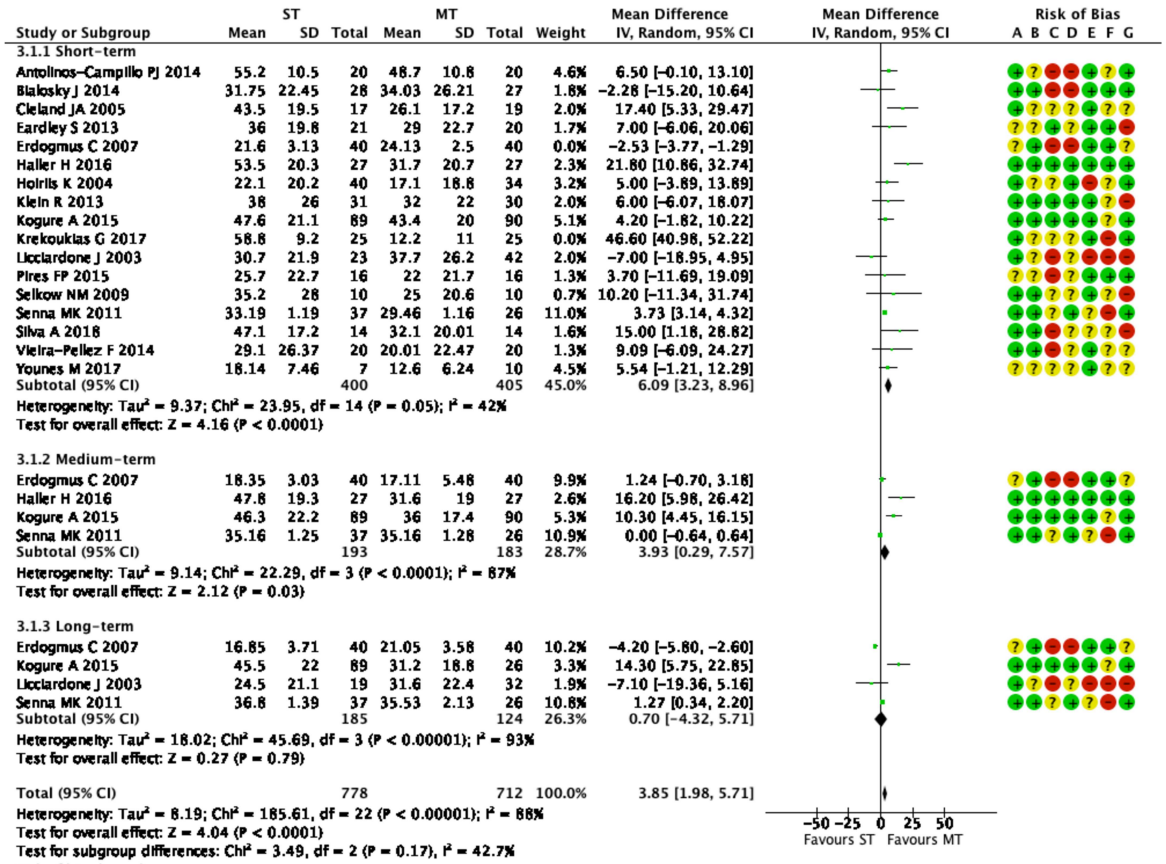
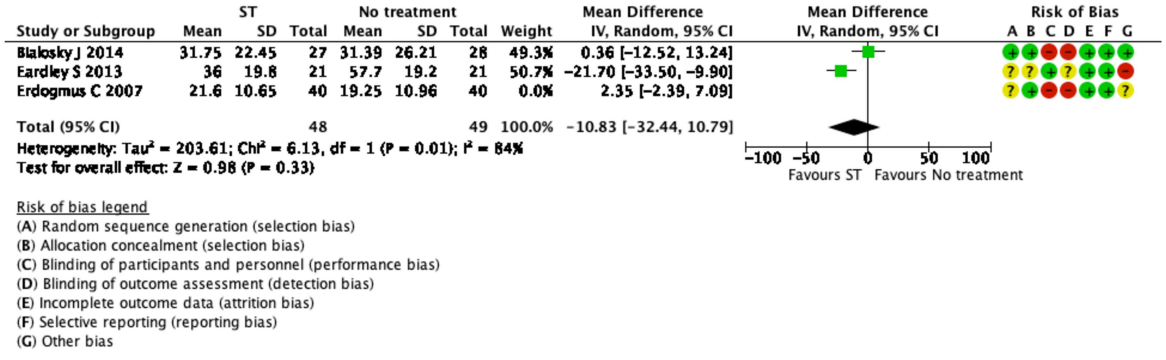
(B)



Appendix 4: forest plot of comparison pain outcome sham treatment vs manual therapies with the inclusion of two trials (Erdogmus C and Krekoukias G) at short, medium and long-term.



Appendix 4.1: Sensitivity analysis with the exclusion of Ergogmus C and Krekoukias G at short, medium and long-term



Appendix 5: forest plot of comparison ST versus no treatment in back pain outcome at short-term with exclusion of Erdogmus C 2007 trial