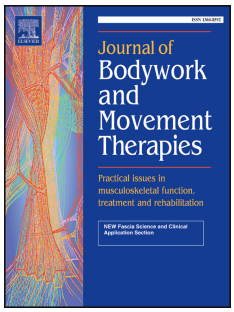
Accepted Manuscript



Long-term effect of direction-movement control training on female patients with chronic neck pain

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PII: S1360-8592(17)30128-6

DOI: 10.1016/j.jbmt.2017.06.004

Reference: YJBMT 1551

To appear in: *Journal of Bodywork & Movement Therapies*

Please cite this article as: Khosrokiani, Z., Letafatkar, A., Sokhangoie, Y., Long-term effect of direction-movement control training on female patients with chronic neck pain, *Journal of Bodywork & Movement Therapies* (2017), doi: 10.1016/j.jbmt.2017.06.004.

Long-term effect of direction- movement control training on female patients with chronic neck pain

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Abstract

Background: Treatment of movement faults in the neck is known as an important factor in treatment of chronic neck pain. Along with the identification of site and direction of the faults, direction-movement control intervention retrains the control of the movement faults.

Purpose: This study was designed to investigate long-term effects of a direction- movement control training on pain, disability, head repositioning accuracy, function, cervical flexor endurance, and range of motion in female patients with chronic nonspecific neck pain.

Material and Methods: Thirty women (36.5 ± 5.7 years) with chronic nonspecific neck pain were randomly allocated into two groups, i.e., an experimental group (n = 15) and a control group (n = 15). The experimental group performed the direction- movement control training for 30 min/day, three days per week for six months.
All subjects were evaluated using the visual analog scale (VAS), range of motion (TOM), progressive iso-inertial lifting evaluation (PILE), neck disability Index (NDI), helmet attached with laser pointer using for head repositioning accuracy (HRA), and Trott's test (deep neck flexor endurance), in pre- and six-months post-treatment intervention.

Results: Significant differences were observed for the pain, neck disability Index, function endurance, head repositioning accuracy, range of motion, and cervical flexor endurance in the experimental group compared to that of control group.

Conclusion: Direction- movement control training is likely to be an effective training program to enhance body functionality through improvement of pain, function, endurance, head repositioning accuracy, range of motion, and cervical flexor endurance. Due to the high reported effect size for direction- movement control exercises, the application of the training is suggested as a supplementary method to improve chronic nonspecific neck pain in females.

Keywords: Chronic neck pain, head repositioning accuracy, function.

Highlights

- The effects of direction-movement control exercises in the treatment of neck pain were examined.
- It is observed that the exercises that are categorized with site and direction of uncontrolled movements will improve functionality in patients with neck pain.
- High effect size of the direction-movement control training was reported in chronic nonspecific neck pain.

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