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Osteopathic treatment of patients suffering from chronic non-specific low back pain: A dose-response pilot study

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Background: Dose-response studies are needed for pharmaceuticals, but have not been commonly performed in the field of manual therapy.

Objective: The aim of this study was to determine the combination of treatment numbers and intervals needed to obtain the optimal effect of osteopathic treatment for patients with chronic non-specific low back pain.

Design: The study was performed as an open, randomized, single-centre trial with a 22 factorial design.

Methods: The patients were allocated equally to four groups by block randomization. The first group was given two treatments at an interval of 14 days, the second group was given two treatments at an interval of seven days, the third group received four treatments with intervals of 14 days, and the fourth group received four treatments with intervals of seven days. Oswestry Disability Index (ODI) and the Numeric Rating Scale (NRS) were recorded at baseline and two weeks post treatment.

Participants: Eight women and four men with chronic non-specific low back pain were included.

Results: The two treatments with an interval of 14 days resulted in an ODI reduction of only 1.3 (95% CI: -21–24.1). The largest reduction in ODI was detected in the four treatments with the seven days intervals. The mean reduction in this group was found to be 19.3 (95% CI: -14.4–53.1). An interaction between the number of treatments and the treatment interval was observed.

Conclusion: The effect increased with increases in the number of treatments and reductions in the treatment interval. The program with four treatments and intervals of seven days was found to be optimal among the four examined regimens.

Biography

Espen Glomsrød has completed his MSc in 2013 from University of Bergen, Norway. From 2002-2013 he worked as a teacher of osteopathy in Nordisk Akademi for Ostopati and Norges Helsehøyskole Campus Christiania, Oslo, Norway. He works as an Osteopath DO (eur.) MSc in a private clinic in Halden, Norway.

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