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RESEARCH ARTICLE

The Nordic Maintenance Care program: Effectiveness of chiropractic maintenance care versus symptom-guided treatment for recurrent and persistent low back pain—A pragmatic randomized controlled trial

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Data Availability Statement: Due to ethical restrictions of disclosing personal data, authors have to seek permission to allow us to make the data used in this study available. Data will be available upon request after permission is granted from the Karolinska Institutet's Ethics Review Board in Stockholm whose contact is kansli@stockholm.epn.se. Inquiries for data access should first be sent to irene.jensen@ki.se, who will

Abstract

Background

For individuals with recurrent or persistent non-specific low back pain (LBP), exercise and exercise combined with education have been shown to be effective in preventing new episodes or in reducing the impact of the condition. Chiropractors have traditionally used Maintenance Care (MC), as secondary and tertiary prevention strategies. The aim of this trial was to investigate the effectiveness of MC on pain trajectories for patients with recurrent or persistent LBP.

Method

This pragmatic, investigator-blinded, two arm randomized controlled trial included consecutive patients (18–65 years old) with non-specific LBP, who had an early favorable response to chiropractic care. After an initial course of treatment, eligible subjects were randomized to either MC or control (symptom-guided treatment). The primary outcome was total number of days with bothersome LBP during 52 weeks collected weekly with text-messages (SMS) and estimated by a GEE model.

Results

Three hundred and twenty-eight subjects were randomly allocated to one of the two treatment groups. MC resulted in a reduction in the total number of days per week with bothersome LBP compared with symptom-guided treatment. During the 12 month study period, the MC group (n = 163, 3 dropouts) reported 12.8 (95% CI = 10.1, 15.5; p = <0.001) fewer days in total with bothersome LBP compared to the control group (n = 158, 4 dropouts) and

received 1.7 (95% CI = 1.8, 2.1; p = <0.001) more treatments. Numbers presented are means. No serious adverse events were recorded.

Conclusion

MC was more effective than symptom-guided treatment in reducing the total number of days over 52 weeks with bothersome non-specific LBP but it resulted in a higher number of treatments. For selected patients with recurrent or persistent non-specific LBP who respond well to an initial course of chiropractic care, MC should be considered an option for tertiary prevention.

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then contact the ethics board for permission to openly share the data.

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Abbreviations: 95% CI, 95% Confidence Intervals; AC, Adaptive Coper; ACT, Mechanically assisted spinal manipulative therapy using the activator instrument; DROP, Mechanically assisted spinal manipulative therapy using a drop mechanism in table; DYS, Dysfunctional; EQ5D, EuroQol 5 dimensions; GEE, Generalized Estimating Equations; ID, Interpersonally Distressed; LBP, Low Back Pain; LKR, Swedish Chiropractic association; MC, Maintenance Care; MOB, Mobilization; MPI, West-Haven Yale Multidimensional Pain Inventory; p, p-value; QIC, Quasi-Likelihood Criterion; RCT, Randomized Controlled Trial; RMDQ, Roland Morris Disability Questionnaire; SD, Standard Deviation; SMS, Text Message; SMT, Spinal Manipulative Therapy; STT, Soft Tissue Therapy.