

People seeking treatment for a new episode of neck pain typically have rapid improvement in symptoms: an observational study

Leaver AM, Maher CG, McAuley JH, Jull G, Latimer J, Refshaug KM (2013) People seeking treatment for a new episode of neck pain typically have rapid improvement in symptoms: an observational study. *Journal of Physiotherapy* 59: 31-37. (Abstract prepared by Scott Farrell)

Objective

To investigate the clinical course of a new case of non-specific neck pain, when treated by a primary care manual therapy practitioner.

Methods

An observational study was undertaken involving 181 participants aged 18-70 years (mean 38.8 years) with a new case of non-specific neck pain, who sought treatment from a physiotherapist or chiropractor at one of 11 clinics in Sydney, Australia. Recruitment was undertaken in the context of a concurrent randomised trial comparing the effectiveness of two manual therapy techniques in the treatment of acute neck pain (Leaver et al 2010). Participants were excluded from the sample if their neck pain was related to trauma (e.g. motor vehicle accident); distal symptoms were the primary complaint; they had a history of neck surgery; neck pain severity was rated less than 2 on a 0-10 visual analogue scale (VAS); or they demonstrated signs of sinister or specific pathology (e.g. fracture, malignancy).

Participants received four treatment sessions over two weeks from an experienced physiotherapist or chiropractor, comprising manipulation or mobilisation (depending on trial group allocation), as well as exercise prescription, electrophysical agents and/or activity modification advice, at the discretion of the treating clinician. Participants completed baseline questionnaires detailing demographic and clinical variables at their initial appointment, and over a three-month period, used standardised diaries to record severity of pain (0-10 VAS) and activity limitation. Telephone interviews were conducted throughout the three-month period, including an exit interview. Pain and activity recovery times, pain and disability at three months, and clinical and demographic prognostic factors were the primary outcome measures.

Results

Mean pain scores improved from a baseline of 6.1 (SD 2.0) to 2.5 (SD 2.0) at two weeks, to 1.5 (SD 1.8) at three months, with 53% of participants indicating their neck pain had completely recovered by the end of the study. Mean disability (quantified on a 0 to 50 scale) decreased from 15.5 (SD 7.4) initially to 5.4 (SD 6.4) at three months. Factors associated with faster recovery were better self-rated general health, shorter duration of symptoms, being a smoker, and no concurrent head or upper back pain. Factors associated with higher disability at three months were older age, higher baseline disability, concurrent back pain, and previous sick leave for neck pain.

Conclusion

Patients suffering a new case of non-specific neck pain that undergo physiotherapy/chiropractic manual therapy treatment

generally demonstrate a rapid decrease in pain severity. Lingering pain and disability are relatively uncommon, and a number of prognostic indicators can identify those patients at risk of ongoing disability. This information can serve to guide clinicians and to reassure patients in a primary care setting.

Commentary

This observational study provides information useful to clinical practice, as neck pain is a problem commonly managed by physiotherapists, estimated to affect 30-50% of the adult population over a 12-month period (Hogg-Johnson et al 2008). The results suggest that patients suffering a new case of non-specific neck pain being managed in a primary care physiotherapy or chiropractic setting typically experience a rapid and significant reduction in pain and associated disability. Despite a moderate degree of reported pain and disability initially, the patients in this study demonstrated a rapid decrease in pain and return to normal activity usually within two weeks of commencing treatment. More than half (53%) of the participants reported a full recovery from their neck pain, 75% of which occurred within four weeks. This is important, as it provides a grounding from which clinicians may educate and reassure patients presenting with a new case of neck pain regarding their recovery, as per ACC guidelines (ACC 2009).

These results also provide clinicians with prognostic indicators for those patients likely to exhibit a rapid recovery, as well as those at risk of ongoing neck pain-related disability after three months. Identification of such patients could assist in clinical decision-making, for example prompting the early referral of patients likely to suffer ongoing disability to other members of the multidisciplinary healthcare team.

There are a number of issues to be considered when applying the results of this study to a wider healthcare context. First, as the study is observational, not a randomised control trial, it cannot be said if the observed recovery time is due to the treatment received or a result of natural healing processes. Second, a number of the demographic variables suggest the sample is not representative of the wider Australian population. For example, in this study 9% of participants were smokers, and 60% held a university degree or higher. However, the Australian Bureau of Statistics (2012a, 2012b) report that in 2012, 16.3% of Australians were smokers and 25% held a bachelor's degree. Furthermore, considering that private physiotherapy and chiropractic clinics in Australia are not publically funded, it could be inferred that the sample has a positive socioeconomic bias. Finally, as the study was undertaken within the framework of a manual therapy trial a selection bias should be considered, as the authors report that in the manual therapy trial, participants were excluded if the treating clinician did not feel manipulative therapy was indicated. This may well limit the applicability of the prognostic findings of this study to a wider clinical context.

This study provides clinicians with insight into the clinical course of acute neck pain when managed in a primary care manual therapy setting, including identification of prognostic indicators of rapid recovery and ongoing disability.

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