ORIGINAL ARTICLE

A randomized controlled trial of hypnosis compared with biofeedback for adults with chronic low back pain

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Conflict of interest
Mark P. Jensen is an author of two books on the topic of this paper and receives royalties for the sales of those books. The other authors declare no conflict of interest.

Abstract

Background: Chronic low back pain (CLBP) is common and results in significant costs to individuals, families and society. Although some research supports the efficacy of hypnosis for CLBP, we know little about the minimum dose needed to produce meaningful benefits, the roles of home practice and hypnotizability on outcome, or the maintenance of treatment benefits beyond 3 months.
Methods: One hundred veterans with CLBP participated in a randomized, four-group design study. The groups were (1) an eight-session self-hypnosis training intervention without audio recordings for home practice; (2) an eight-session self-hypnosis training intervention with recordings; (3) a two-session self-hypnosis training intervention with recordings and brief weekly reminder telephone calls; and (4) an eight-session active (biofeedback) control intervention.
Results: Participants in all four groups reported significant pre- to post-treatment improvements in pain intensity, pain interference and sleep quality. The hypnosis groups combined reported significantly more pain intensity reduction than the control group. There was no significant difference among the three hypnosis conditions. Over half of the participants who received hypnosis reported clinically meaningful (≥30%) reductions in pain intensity, and they maintained these benefits for at least 6 months after treatment. Neither hypnotizability nor amount of home practice was associated significantly with treatment outcome.
Conclusions: The findings indicate that two sessions of self-hypnosis training with audio recordings for home practice may be as effective as eight sessions of hypnosis treatment. If replicated in other patient samples, the findings have important implications for the application of hypnosis treatment for chronic pain management.

1. Introduction

Low back pain is one of the most common chronic pain problems, and results in significant costs to individuals, their families and society (Licciardone, 2008; Lew et al., 2009). Both case studies (King et al., 2001; Tan et al., 2010) and some controlled trials support the efficacy of hypnosis for chronic low back pain (McCauley et al., 1983; Edelson and Fitzpatrick, 1989; Crawford et al., 1998). Control conditions for these studies have included treatments such as progressive relaxation, cognitive behaviour therapy and attention. Surface electromyography (sEMG) biofeedback is another reasonable active control for hypnosis