

What are the recommended methods to increase exercise adherence among patients with musculoskeletal pain?

To answer this question, we performed a comprehensive search of the PubMed database (December 2012) for papers that addressed this specific research question.

Due to the volume of literature on this topic, search was restricted to systematic reviews (1-4) and recent cohort study (5) not included in reviews.

Jack et al (1) and McLean et al (4) evaluated treatment adherence within physical therapy. Reviewing 22 studies, factors related to low adherence were low prior physical activity, self-efficacy, depression, support, perceived barriers, and pain during exercise (1). Reviewing 5 studies, McLean concluded that evidence is conflicting for use of supportive materials and cognitive-behavioral (CB) approaches to improve adherence (4). A Cochrane review of 42 studies of exercise adherence among patients with chronic muscul-

oskeletal pain found that exercise type does not appear to affect adherence, while mode of exercise delivery, strategies to increase adherence, self-management programs, and CB therapy may influence adherence (2). In review of 11 studies, Kingston et al (3) concluded that use of video technology had positive effect on compliance and was often no different than face-to-face instruction. Medina-Mirapeix et al (5) evaluated adherence to exercise frequency and exercise duration among 184 patients completing home exercise program and found that self efficacy was related to both frequency and duration adherence. Adherence to exercise frequency was also predicted by factors such as total number of exercises prescribed and therapist clarifying patient's doubts (5).

Overall conclusions are limited by multifactorial nature of adherence and difficulty in accurate measurement of adherence. There is no gold standard for adherence assessment, and it is possible that measurement itself may affect patient's behavior (2). Due to many factors that affect adherence related to patient, provider, and organization, physical therapists should be aware of wide range of strategies which may help to optimize patient adherence, including use of video.

Check with the provider of this newsletter to learn more about exercises appropriate for this condition.

1. Jack K, McLean SM, Moffett JK, Gardiner E. Barriers to treatment adherence in physiotherapy outpatient clinics: a systematic review. *Man Ther.* 2010 Jun;15(3):220-8. Epub 2010 Feb 16. Review. PubMed PMID: 20163979; PubMed Central PMCID: PMC2923776.
2. Jordan JL, Holden MA, Mason EE, Foster NE. Interventions to improve adherence to exercise for chronic musculoskeletal pain in adults. *Cochrane Database Syst Rev.* 2010 Jan 20;(1):CD005956. Review. PubMed PMID: 20091582.
3. Kingston G, Gray MA, Williams G. A critical review of the evidence on the use of videotapes or DVD to promote patient compliance with home programmes. *Disabil Rehabil Assist Technol.* 2010 May;5(3):153-63. Review. PubMed PMID: 20205545.
4. McLean SM, Burton M, Bradley L, Littlewood C. Interventions for enhancing adherence with physiotherapy: a systematic review. *Man Ther.* 2010 Dec;15(6):514-21. Epub 2010 Jul 14. Review. PubMed PMID: 20630793.
5. Medina-Mirapeix F, Escolar-Reina P, Gascón-Cánovas JJ, Montilla-Herrador J, Jimeno-Serrano FJ, Collins SM. Predictive factors of adherence to frequency and duration components in home exercise programs for neck and low back pain: an observational study. *BMC Musculoskelet Disord.* 2009 Dec 9;10:155. PubMed PMID: 19995464; PubMed Central PMCID: PMC2796992.