



*Dynamic Chiropractic* – February 9, 1998, Vol. 16, Issue 04

## **Rehabilitation Compliance**

By Kim Christensen, DC, DACRB, CCSP, CSCS

Adherence to rehabilitation programs is crucial to an injured patient's ability to return to activity. Having patients do procedures on their own time at home is very cost-effective, but the only problem is that giving patients instructions for self-care and exercises is wasteful when the patients don't comply with the instructions. Why don't they comply? How can we get our patients to do the exercises we know they should and achieve more consistent treatment results?

Much of the research into the likelihood of patient compliance with the doctor's instructions has focused on drug regimens (which show approximately 60% non-compliance).<sup>1</sup> Studies of exercise compliance have usually been with chronic conditions, such as diabetes, hypertension, or rheumatoid arthritis, and they have also found poor results. One recent British study of home aerobic training of patients with rheumatoid arthritis concluded that "although safe, unsupervised home exercise programmes may benefit few patients" since the compliance levels were so low.<sup>2</sup> Another group which studied exercise in the treatment of fibromyalgia reported that "aerobic exercise was the most effective treatment," but that "at follow up, there were no obvious group differences in symptom severity, which seemed to be due to a considerable compliance problem."<sup>3</sup>

Why some injured patients adhere to their rehabilitation program and others do not was investigated in 41 college athletes (21 men and 20 women) who had sustained sports-related injuries involving either the shoulder, the knee, or the ankle.<sup>4</sup> Each individual had started a rehabilitation program of at least six weeks. A review of their rehabilitation records and consultation with their clinicians revealed that 21 of them had adhered to their program and 20 had not. All 41 study participants completed a 40-item rehabilitation adherence questionnaire that contained six scales pertaining to perceived exertion; pain tolerance; self-motivation; support from significant others; scheduling; and environmental conditions. These scales represent personal and situational factors previously shown to discriminate adherents from nonadherents in various contexts.

Statistical analysis of the data showed that support from significant others contributed most to adherence to rehabilitation programs. Adherents perceived that they worked harder at their rehabilitation than did nonadherents, but nonadherents also rated their efforts relatively high. A deterrent to adherence was inconvenient scheduling. As expected, self-motivation played an important role. Also, adherents tolerated the pain and discomfort of rehabilitation better than did nonadherents. Environmental conditions were the least significant reasons for nonadherence.

All rehabilitation personnel should be very much aware that the injured patient who receives support from those around them, including those supervising the rehabilitation regime, are more likely to adhere to their rehabilitation program than those who receive less support. If the patient knows you care about their progress, they will be much more enthusiastic about their rehabilitation program.

Oldridge<sup>5</sup> observed that rehabilitation is influenced by a number of factors, including patient attitudes toward health and physicians, the patient's understanding of the illness and of the treatment prescribed, and feelings about returning to work and social situations. The patient must believe in the diagnosis and understand the concept of recurrence. Poor compliance rates are in general associated with medical regimens that require many restrictions or changes in personal habits, or involve multiple physicians or long intervals between referral and appointment. For example, exercise rehabilitation programs for cardiac patients have relatively high dropout rates. A rehabilitative exercise program must be perceived as having beneficial effects, and it should provide appropriate motivation, such as enjoyable exercise and perhaps social opportunities.

It may be possible to profile and thus identify potential rehabilitation patient dropouts so that appropriate entry strategies can be incorporated into exercise programs to improve compliance. Programs should contain more than an exercise prescription. Feedback on progress (or the lack of it) should be provided to the patient and spouse/parent. Other aspects that should be included in the program (where appropriate) are: relaxation techniques; proper diet; advice on sexual activity; vocational guidance; and social gatherings.

Improvement in functional capacity requires compliance over an extended period. Group programs encourage patients to adopt and maintain therapeutic and rehabilitative regimens by providing a health-relevant reference group of appropriate and relevant others who are in similar situations. The group provides the patient with a basis for evaluating the progress.

It's hardly surprising that a number of studies have shown supervised and/or group exercise programs to be much more effective (for decreased pain, decreased disability scores, and increased fitness) than unsupervised exercising in the treatment of low back pain. Supervised patients generally complete more of their recommended exercise sessions than do nonsupervised patients.<sup>6,7</sup> But while we know that supervision makes it more likely that patients will do their exercises, it's also obvious that supervision of exercising is also a very time-intensive and expensive form of treatment. In these days of cost-awareness and health price competition chiropractors need to do everything possible to minimize the costs of such supervision, while still making sure that the time spent in designing an active program is not wasted.

This balance of supervision and cost-effectiveness can be best achieved by regular monitoring of home exercise programs. It is only with repeated follow-ups and some office supervision that any real compliance with home exercises can be expected. Patients must be checked on every visit to see if they're doing the assigned exercises and doing them correctly. This gives you an opportunity to reinforce patients' positive attitude toward home rehabilitation, or to express disappointment with noncompliance.

It is also a good idea to have the patient demonstrate the assigned exercises during an office visit. Preferably, these demonstrations should be done weekly in the early part of the treatment program. By the way, these 10-15 minute "rehabilitation reviews" are billable services for which the doctor deserves an additional fee.

Be selective in which exercises you recommend. Keep in mind that most patients have a pretty low tolerance level and time availability for exercising. The fewer exercises you provide, the greater the likelihood that they'll get done regularly.

### *References*

1. O'Brien MK, Petrie K, Raeburn J. Adherence to medication regimens: updating a complex medical issue. *Med Care Review* 1992; 12:435-454.
2. Daltroy LH, et al. Effectiveness of minimally supervised home aerobic training in patients with systemic rheumatic disease. *Br J Rheumatol* 1995; 34:1064-1069.
3. Wigers SH, Stiles TC, Vogel PA. Effects of aerobic exercise vs. stress management treatment in fibromyalgia: a 4.5 year prospective study. *Scand J Rheumatol* 1996; 25:77-86.
4. Fisher AC, Domm MA, Wuest DA. *Physician Sportmed* 1988; 16:47-51.
5. Oldridge NB. *Physician Sportmed* 1979; 7:94-103.

6. Saal JA, Saal JS. Nonoperative treatment of herniated lumbar intervertebral disc with radiculopathy: an outcome study. *Spine* 1989; 14:431-437.
7. Reilly K, Lovejoy B, Williams R, Roth H. Differences between a supervised and independent strength and conditioning program with chronic low back syndromes. *J Occ Med* 1989; 31:547-550.

*Kim D. Christensen, DC, DACRB, CCSP*  
*Ridgefield, Washington*

---

Click [here](#) for more information about Kim Christensen, DC, DACRB, CCSP, CSCS.



Page printed from:

[http://www.chiroweb.com/mpacms/dc/article.php?id=37076&no\\_paginate=true&p\\_friendly=true&no\\_b=true](http://www.chiroweb.com/mpacms/dc/article.php?id=37076&no_paginate=true&p_friendly=true&no_b=true)