What to Do about "Yellow Flags"

By Craig Liebenson, DC

On May 1-3, 2003, the World Federation of Chiropractic’s 7th Biennial Congress will host a preeminent European leader in musculoskeletal medicine, Professor Stephen Linton. He is an expert in psychosocial aspects of back and neck pain patients, and has pioneered the identification of risk factors of chronicity and preemptive reactivation treatments with a cognitive-behavioral emphasis.

This article will summarize the impact of psychosocial factors on prediction of patient prognosis, and how patients with such factors can be appropriately managed.

### Epidemiologic Data Shows LBP Is More Chronic than Previously Believed

- Did you know that 12 months after initial consultation for LBP the majority of patients have not recovered?
- Even though patients have stopped seeking care, this does not mean they are asymptomatic or fully functional.
- It is better to advise patients that LBP tends to recur, rather than build up expectations that it can be "fixed" or cured. Reassurance about the safety of reactivation and warnings about the dangers of deconditioning are recommended.


### What Are "Yellow Flags?"

"Yellow flags" are risk factors associated with chronic pain or disability.¹⁻⁶,⁹,⁻²⁰,⁻²¹ They are subjective and have a significant psychosocial predominance. Examples include negative coping strategies, poor self-efficacy beliefs, fear-avoidance behavior, and distress. Whereas "red flags" require urgent attention, further testing and possibly specialist referral, "yellow flags" only require a shift in the focus of care. Psychological screening via history taking has low sensitivity and predictive value for identifying distressed patients, thus formal screening of some sort, such as with a questionnaire, is recommended.⁷

According to Pinchus, et al.,⁸ the risk of developing long-term LBP, related activity limitations (disability), and work loss arises from four main sources that interact with each other: the individual; treatment provider; compensation or health care system; and workplace or home environment.
Nonpsychological patient factors predictive of a slow recovery include duration of disability, heavy job demands, past history of frequent recurrences, and sciatica.\textsuperscript{1,2,6,8,12,13} What treatment provider factors suggest a slower recovery? Thorough physical and functional examination \textbf{not} performed; report of findings \textbf{not} given; emphasis on \textit{medication and passive care}; emphasis on pathology, disease, injury and the importance of "high-tech" testing; promotion that hurt equals harm; and the recommendation of bed rest, instead of promotion of activity modification and gradual exercise.\textsuperscript{14}

Reis, et al., evaluated both the patients’ and clinicians’ perceptions of worry; coping; limitations; expectations of pain relief; and pain interference.\textsuperscript{15} When evaluated individually, both patients’ and clinicians’ perceptions were found to predict outcome at two, four, eight and 12 months.

**What to Do about "Yellow Flags"**

A patient with a high "yellow flags" score is either experiencing abnormal illness behavior or is at risk for it. Diagnosis should be oriented toward avoiding "labeling" the patient with an injured back (i.e., ruptured disc) or degenerative condition, since coincidental structural pathology is so common.\textsuperscript{16} Treatment should reduce dependency on medication and other passive forms of treatment (including manipulation) and encourage the development of self-treatment skills. Surgical success rates in otherwise properly selected individuals are much lower in the presence of "yellow flags." In certain cases, specialist referral for behavioral medicine counseling regarding affective and cognitive issues is required. It is important to realize that "yellow flags" are not patients’ fault, but they suggest that management strategies need to be altered to maximize the likelihood of recovery.

Ciccione and Just\textsuperscript{10} showed that in susceptible individuals, there is discordance between pain expectancies and pain intensity with activity. However, these are unknown to the patients. To decrease fear-avoidance behavior, patients should be gradually and incrementally exposed to perceived painful activities. The clinician should guide and teach patients that their expectations are \textbf{not} accurate. In particular, reducing anxiety and pain expectations associated with the specific movements that the patient is most afraid of should become the goal of care.\textsuperscript{11} As part of this process, operant-conditioning therapy involves "graded exposures" to a progressively greater duration, intensity and frequency of exercise. This is often referred to as "exercise administered and progressed by quota."\textsuperscript{17-19}
Patient education should focus on the fact that normal activities can be resumed (such as walking, swimming, biking) safely while informing the patient about simple activity modifications to reduce biomechanical strain (i.e., hip hinge, cats, abdominal bracing). Patients should be advised to stay as active as possible; to gradually increase their physical activities; that it is safe to do so as long as the pain is not peripheralizing; and that hurt does not necessarily equal harm, but is just a sign they are mobilizing stiff areas.

**Indahl’s Long-Term Follow-Up Work Shows that Reassurance and Reactivation Are Key to Recovery!**

- Being too careful was emphasized as the worst form of self-treatment.
- Patients were instructed to take regular, brisk walks.
- Remaining in one rest position, lying, sitting or standing, was discouraged.
- Light stretching was recommended for acute "flare-ups" rather than rest.
- Patients were informed that anticipation of pain can increase muscle tension and perpetuate the pain.


Such behavioral approaches utilize an educational discussion about recovery goals and the means to reach them. This can encompass McKenzie’s centralization principles, stabilization’s "neutral" postural awareness concepts, and an appreciation that hurt does not necessarily equal harm. A problem-solving approach can be utilized by teaching patients how to take an active role, reduce modifiable risk factors, and avoid impulsively seeking mainly symptomatic relief (Shaw, et al., 2001).

*References*


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