

## The State of the Art: "Evidence-Based Care"

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*Editor's note:* This is Part II of a four-part series on psychosocial aspects of low back care.

Low back pain patients require an approach which addresses the physical and psychological dimensions of their problems. This modern approach is called biopsychosocial (BPS) in that the *total* patient is our subject.

Psychosocial factors have been termed "yellow flags," and are considered risk factors of a poor recovery from an acute episode. Their identification should lead to matched appropriate intervention, including a cognitive and behavioral approach. It is not essential to identify such factors on initial presentation, but if a patient is slow to recover by 2-4 weeks, then such identification of "yellow flags" should be paramount so as to redirect care in an appropriate direction.

### The Biopsychosocial Approach

Even though most patients recover from back pain episodes in a fairly short amount of time, the recurrence rate is estimated to be 70 percent. Additionally, the minority who don't recover account for by far the greatest percentage of costs (85 percent) associated with the low back problem. Therefore, the traditional biomedical model should be re-evaluated in light of its failure to successfully address the low back problem.

According to Deyo, 20-25 percent of patients are dissatisfied with their care for back and neck pain.<sup>1</sup> Patients want reassurance that there is nothing serious wrong with their back (i.e., tumor, infection, fracture, widespread neurological disease). They want to know what is causing their symptoms, what they should do on their own, and, of course, how to get pain relief.

According to a recent RCT of the "Back Book," the biomedical (BM) report of findings (ROF) is not as effective as a biopsychosocial one. Information and advice emphasizing the value of fitness and safety of resuming activities achieved superior outcomes to advice which reinforced rest, activity restrictions and the notion that the spine was injured or damaged (arthritis, herniated disc).<sup>2</sup>

In patients failing to recover, the limitations of the biomedical approach are even more evident. In an attempt to find the structural cause of LBP, expensive tests are ordered with high false positive rates. The patient is either told nothing is wrong and labelled "psychogenic", or they are told about the pathology and that they should learn to live with it. When the chronic patient fails to recover in such cases, whose failure is it, the patient's or doctor's?

What should be in an ROF? It should be a commitment to give patients the best and most up-to-date advice and treatment. Patients should be instructed how to deal with their low backaches themselves; recover quickly and keep mobile; stay active and avoid disability; and help themselves to lead normal lives. There is a substantial difference between the BPS and BM ROF.

The biopsychosocial model sees pain as more than just the result of tissue injury. Instead, it

involves physical, psychological and social factors. Therefore, it is not just the result of ascending nociceptive input from the periphery (Cartesian model) but is also modulated by descending pathways that inhibit or facilitate nociception (gate control theory or Melzack and Wall).<sup>3</sup> Therefore, the perception of pain is heavily influenced by one's attitudes, beliefs and social environment (see Figure I).<sup>4,5</sup>

### Abnormal Illness Behavior and "Yellow Flags"

Abnormal illness behavior contributes to a slower or inadequate recovery. For instance, fear-avoidance behavior leads to deconditioning.<sup>6</sup> Patients who equate hurt with harm develop a disabling form of thinking. They develop fear-avoidance behavior which promotes deconditioning and thus leads to less stability in the low back patient (see Figure II). It is important to identify the patient who is fearful and avoid encouraging them to take on a "sick" role.

According to Troup, "If fear of pain persists, unless it is specifically recognized and treated, it leads inexorably to pain-avoidance and thence to disuse."<sup>7</sup>

"Yellow flags" are specific psychosocial risk factors associated with chronic pain or disability. In contrast to "red flags" which may require urgent attention, further testing and possibly specialist referral, "yellow flags" only require a shift in the focus of care. These risk factors have been shown to predict future chronic pain or disability in the United States,<sup>8,9</sup> New Zealand,<sup>10-12</sup> and England.<sup>13</sup> An excellent literature review of psychological risk factors in both neck and back pain was recently published.<sup>15</sup> In this paper it is made clear that psycho-social factors have not been shown to cause pain, but to slow down recovery when acute pain is present.<sup>14</sup>

### "Yellow Flags" Psychosocial Predictors of a Poor Outcome<sup>12</sup>

Additional patient factors predictive of a slow recovery include duration of disability, heavy job demands, past history of frequent recurrences, and sciatica.<sup>15</sup>

What clinical factors suggest a slower recovery? Thorough physical and functional examination not performed; report of findings not given; emphasis on medication and passive care; emphasis on pathology, disease, injury and the importance of "high-tech" testing; promotion that hurts or harms; the recommendation of bedrest instead of promotion of activity modification and gradual exercise.<sup>16</sup>

### Sample "yellow flags questions

If you had to spend the rest of your life with your condition *as it is right now*, how would you feel about it?

Delighted 0 1 2 3 4 5 6 7 8 9 10 Terrible

How anxious (e.g., tense, uptight, irritable, fearful, with difficulty in concentrating or relaxing) you have been feeling during the past week:

Not at all 0 1 2 3 4 5 6 7 8 9 10 Extremely anxious

How much you have been able to control (i.e., reduce/help) your pain or complaint on your own during the past week:

I can reduce it 0 1 2 3 4 5 6 7 8 9 10 I can't reduce it at all

I can sleep at night:

Can't do it because of pain 0 1 2 3 4 5 6 7 8 9 10 Can do it without pain being a problem

How long ago did your current episode begin?

\_\_\_ *Less than one week ago*

\_\_\_ *Less than two weeks ago*

\_\_\_ *two to eight weeks ago*

\_\_\_ *eight to three months ago*

\_\_\_ *three to six months ago*

\_\_\_ *six months ago*

How well do you like your work?

Not at all 0 1 2 3 4 5 6 7 8 9 10 very much

How physically demanding is your job (include housework if not employed outside the home)?

Not at all 0 1 2 3 4 5 6 7 8 9 10 very demanding

Yellow flags questionnaires are based on validated questions and are simple to administer and score.<sup>9-13, 15,17</sup>

How to Change Patient Care When Psychosocial Factors Are Relevant

A patient with a high "yellow flags" score is either experiencing abnormal illness behavior or is at risk for this. Management should be oriented toward reducing dependency on medication and other passive forms of treatment and encouraging the development of self-treatment skills. Such a patient is at increased risk for treatment failure with medication, manipulation, exercise and surgery, unless a biobehavioral approach is utilized. 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 the patient's fault, but they suggest management strategies need to be altered in order to maximize the likelihood of recovery.

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OCTOBER 2000

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